

A History  
of Indian Medical  
Literature

VOLUME I A

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ॐ

भद्रं सर्वेभ्यो भूतेभ्यः



TO HANNIE  
UXORI CARAE  
पत्तिव्रतायै



*Azadirachta indica* A. Juss.

Nimba

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A History of  
Indian Medical Literature

VOLUME I A TEXT



EGBERT FORSTEN · GRONINGEN

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## Preface

The initial impetus to the writing of this survey of Indian medical literature is due to Prof. J. Gonda, who, more than twenty years ago, after the publication of my thesis on the *Mādhavanidāna*, asked me to consider composing a concise book on the subject, to be issued as one of the fascicles of *A history of Indian literature* he was editing.

Rashness made me comply with his request. Rather soon it became apparent that a reliable survey required a preparatory descriptive analysis of the texts and a study of their chronological positions.

Accordingly, I began writing these analyses. This time-consuming activity resulted in the accumulation of an amount of information that could not possibly be compressed in the space allotted to the planned fascicle. The work kept growing, gradually assuming a shape and size that necessitated abandonment of the original design and another way of publication.

After large stretches had been written, the prospect of the possibility of publication led to a collaboration with The Wellcome Institute for the History of Medicine in London, and, in particular, with Dr. D. Wujastyk, attached to this Institute. Over several years he has been helpful to me in many respects. I appreciate the efforts he made in looking after my interests. His expertise and advice facilitated the conversion of my writings into computer files. I acknowledge with gratitude the secretarial assistance of the Wellcome Institute over a long period of time. Several persons spent much time on reading my hand-written pages and processing them. In a later stage, secretarial help has also been forthcoming from the Seminar für Geschichte und Kultur des Vorderen Orients of the University of Hamburg, thanks to Prof. R.E. Emmerick, and from the Institut für Geschichte der Medizin of the University of Munich, thanks to Prof. P.U. Unschuld.

After interruption of my contacts with the Wellcome Institute, due to editorial problems, wholehearted support from a number of Dutch organizations and several persons from my own country safeguarded my work from the danger of remaining unpublished. The offer to accept it as a set of volumes of the Groningen Oriental Series secured its future.

I acknowledge with gratitude the unconditional readiness to further my interests of Prof. H.T. Bakker of the Institute for Religious Studies of the University of Groningen and of Prof. H.W. Bodewitz of the Kern Institute of the University of Leiden. My publisher, Egbert Forsten, mobilized the resources at his disposal and was always helpful by word and deed. The expertise of Dr. Roelf Barkhuis made the production process run smoothly and efficiently.

The publication of my work has been made possible by grants from the Netherlands Organization for Scientific Research (NWO) and the J. Gonda Foundation of the Royal Netherlands Academy of Arts and Sciences.

I should like to thank Prof. R.E. Emmerick of the University of Hamburg for his sincere interest in my work, which has encouraged and stimulated me.

All colleagues and friends who have helped me in persevering during long years of labour may be assured of my appreciation of their assistance.

My daily prop and stay has been my wife Hannie, without whose loyalty this work could never have been completed.



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## Abbreviations

Abhinavanighaṇṭu	Caube, D. (1901).
ABI	Atrideva Vidyālaṅkāra (1976).
ABORI	Annals of the Bhandarkar Oriental Research Institute.
AIAD	Mooss, N.S. (1938; 1949).
AIOC	All India Oriental Conference.
Ali, S. and Ripley, S.D.	Ali, S. and Ripley, S.D. (1983).
ASB	Asiatic Society of Bengal.
Aṣṭāṅgaḥṛdayakoṣa	Vaidya, K.M. (1936).
AV	Atharvaveda.
AVI	Sharma, P.V. (1975c).
Āyurvedasaukhya	Bhagwan Dash and Lalitesh Kasyap (1980, etc.).
BDHM	Bulletin of the Department of History of Medicine, Osmania Medical College, Hyderabad.
BHM	Bulletin of the History of Medicine.
BHU	Banāras Hindu University.
BIHM	Bulletin of the Institute of History of Medicine, Osmania Medical College, Hyderabad.
BIIH	Bulletin of the Indian Institute of History of Medicine, Osmania Medical College, Hyderabad.
BIM	Bulletin of Indian Medicine.
BL	British Library.
BNISI	Bulletin of the National Institute of Sciences of India.
Bod. Cat.	see Cat. Oxford.
BORI	Bhandarkar Oriental Institute.
BSOAS	Bulletin of the School of Oriental and African Studies, London.
Cat. Anup Sanskrit Library	Kunhan Raja, C. and Madhava Krishna Sarma, K. (1948).
Cat. B.B.R.A.S.	Velankar, H.D. (1926; 1928; 1930).
Cat. Berlin	Weber, A. (1853).
Cat. BHU	Tripathi, Rama Shankar (1984).
Cat. Bikaner	Mitra, Rājendralāla (1880).
Cat. Calcutta Sanskrit College IX	Hṛishikeśa Śāstrī and Śiva Chandra Gui (1906).
Cat. IO	Eggeling, J. (1896).
Cat. Jammu	Stein, M.A. (1894).

Cat. Madras	Kuppuswami Sastri, S. (1918).
Cat. Mysore	Malladevaru, H.P. (1986).
Cat. München	Jolly, J. (1912).
Cat. Oxford I	Aufrecht, Th. (1864).
Cat. Oxford II	Winternitz, M. and Keith, A.B. (1905).
Cat. Puṇyavijayaji	Shah, A. (1965).
Cat. Skt. MSS Cambridge	Aufrecht, Th. (1869).
Cat. Skt. MSS N.-W. P.	A catalogue of Sanskrit manuscripts in private libraries of the North-Western Provinces (1874; 1877–78).
Cat. Tanjore	Sastri, P.P.S. (1933).
Cat. Vijayasevasūri	Catalogue of Sanskrit and Prakrit manuscripts, Āc. Vijaya- sevasūri's and Āc. Kṣāntisūri's collections, Ahmedabad 1968.
CBORI	Sharma, Har Dutt (1939).
CC	Aufrecht, Th., Catalogus Catalogorum.
CESS	Pingree, D., Census of the exact sciences in Sanskrit.
Check-list	Rama Rao, B. (1972).
Chopra's Glossary	Chopra, R.N., Nayar, S.L., Chopra, I.C. (1956).
CHSI	Bose, D.M., Sen, S.N., Subbarayappa, B.V. (1971).
Coll. Puṇyavijayaji	Anonymous (1965).
Dave	Dave, K.N. (1985).
Der kleine Pauly	Ziegler, K. and Sontheimer, W. (1979).
DGV	Śarmā, Priyavrat (1975d; 1977a; 1980; 1981).
Dowson	Dowson, J. (1968).
DWH	Dymock, W., Warden, C.J.H., Hooper, D. (1972).
EI	Encyclopaedia of Islam.
EIM	Ramachandra Rao, S.K. (1985).
EIMI	Ramachandra Rao, S.K. (1985).
ERE	Encyclopaedia of Religion and Ethics.
Filliozat, Liste	Filliozat, J. (1934).
Flora of India 1	Sharma, B.D. et al. (1993).
Flora of India 12	Hajra, P.K. et al. (1995).
Gambier-Parry	Gambier-Perry, T.R. (1930).
GOML	Government Oriental Manuscripts Library.
Gulabkunverba	ed. ff of the Carakasamhitā.
Haas, Cat. BM	Haas, E. (1876).
Haas, E.	Haas, E. (1876a; 1877).
Hamdard	Said, H.M. (1970).
Haridattasāstrin	upodghāta to ed. ee of the Carakasamhitā.
HCIP	Majumdar, R.C. (Gen. Ed.), History and Culture of the Indian People.
Hemarājaśarman	Hemarājaśarman's Sanskrit upodghāta to his ed. of the Kāśya- pasamhitā.

HIL	Gonda, J. (Ed.), A history of Indian literature.
HIM	Mukhopadhyaya, G. (1974).
HK	Hilgenberg, L. and Kirfel, W. (1941).
HMI	Sharma, P.V. (Ed.) (1992a).
Hobson-Jobson	Yule, H. and Burnell, A.C. (1968).
Hooker	Hooker, J.D. (1961).
Hopkins	Hopkins, E. W. (1974).
IC	Indian Culture.
IHQ	Indian Historical Quarterly.
IJJ	Indo-Iranian Journal.
IJEB	Indian Journal of Experimental Biology.
IJHM	Indian Journal of History of Medicine.
IJHS	Indian Journal of History of Science.
IJMR	Indian Journal of Medical Research.
IL	Vogel, C. (1979).
IO	India Office.
JA	Journal Asiatique.
Jaggi	Jaggi, O.P.
JAI	Bhaṭṇāgar, R. (1984).
JAMA	Journal of the American Medical Association.
JAOS	Journal of the American Oriental Society.
JASB	Journal of the Asiatic Society of Bengal.
JBBRAS	Journal of the Bombay Branch of the Royal Asiatic Society.
JBNHS	Journal of the Bombay Natural History Society
JBORS	Journal of the Bihar and Orissa Research Society.
JBRs	Journal of the Bihar Research Society.
JEĀS	Journal of the European Āyurvedic Society.
JRAS	Journal of the Royal Asiatic Society.
JRASB	Journal of the Royal Asiatic Society of Bengal.
JREIM	Journal of Research and Education in Indian Medicine.
JRIM	Journal of Research in Indian Medicine.
JTSMIL	Journal of the Tanjore Saraswati Mahal Library.
Kane	Kane, P.V., History of Dharmasāstra.
Kaviratna	translation a of the Carakasamhitā.
Kirtikar and Basu	Kirtikar, K.R. and Basu, B.D. (1981).
Macdonell and Keith	Macdonell, A.A. and Keith, A.B. (1967).
Majumdar, R.C.	Majumdar, R.C. (1948).
Mayrhofer	Mayrhofer, M. (1956; 1963; 1976).
Mitchiner	Mitchiner, J.E. (1982).
Mitra, R., Notices	Mitra, R. (1874), etc.
Monier-Williams	Monier-Williams, M. (1951).
Mookerjee, Bhudeb	Mookerjee, B. (1938).
MW	Monier-Williams, M. (1951).
Nadkarni	Nadkarni, A.K. (1954).

NCC	New Catalogus Catalogorum.
NIA	New Indian Antiquary.
OL(Z)	Orientalistische Literaturzeitung.
Oldenberg, H.	Oldenberg, H. (1923).
Peterson, A report	Peterson, P. (1899).
PO	Poona Orientalist.
PW	Böhtlingk, O. and Roth, R. (1966).
RASB	Royal Asiatic Society of Bengal.
Ray, P. c.s.	Rāy, P., Gupta, H.N. and Roy, M. (1980).
RE	Wissowa, G.
Rechung	Rechung Rinpoche (1973).
RV	Ṛgveda.
Śāstrī, Notices	Śāstrī, H. (1900).
Śāstrī, R.	Śāstrī, Kavirāj Ratnākār (1977).
Śāstrī, Vardhamān	Introduction to the edition of the Kalyāṇakāraka.
Pārśvanāth	
Satyaprakāś	Satya Prakash, Kavirāj Ratnākār (1965).
Sharma, P.V.	translation d of the Carakasamhitā.
Sharma, R.K. and	translation c of the Carakasamhitā.
Bhagwan Dash	
Shastri, A.M.	Shastri, A.M. (1969).
SHM	Studies in History of Medicine, published by the Department of History of Medicine and the Institute of History of Medicine and Medical research, Tughlaqabad, New Delhi.
Shukla, V., I	Shukla, V. (1977).
SICH	Gode, P.K., Studies in Indian Cultural History.
SII	Studien zur Indologie und Iranistik.
SILH	Gode, P.K., Studies in Indian Literary History.
Singhal c.s.	translation f of the Suśrutasaṃhitā.
STMI	Rahman. A. et al. (1982).
V. Śukla	Śukla, V. (1977).
Sūramcandra	Sūramcandra (1978).
Tāntrika Sāhitya	Gopīnāth Kavirāj (1972).
Tawney and Penzer	Penzer, N.M. (1924–1928).
Ṭoḍara	Bhagwan Dash and Lalitesh Kashyap (1980–1994).
Vanausaḍhicandrodaya	Bhaṇḍārī, Ś. (1956–1968).
Vanausaḍhidarpaṇa	Gupta, B.Ch. (1908; 1909).
Vettam Mani	Vettam Mani (1989).
VOHD	Janert, K.L.
Vṛddhatrayī	Hāldār, G. (1963).
VŚS	Umeśacandragupta (1914).
Watt	Watt, G. (1972).
WIHM	The Wellcome Institute for the History of Medicine.

Wilson, H.H.	Wilson, H.H. (1972).
Winternitz	Winternitz, M. (1968).
WIRM	The Wealth of India: Raw Materials.
WZKM	Wiener Zeitschrift für die Kunde des Morgenlandes.
WZKSA	Wiener Zeitschrift für die Kunde Südasiens.
WZKSOA	Wiener Zeitschrift für die Kunde Süd- und Ostasiens.
ZDMG	Zeitschrift der Deutschen Morgenländischen Gesellschaft.

A.h.	Aṣṭāṅgahr̥dayasaṃhitā.
A.s.	Aṣṭāṅgasamgraha.
Ca.	Carakasamhitā.
Ci.	Cikitsāsthāna.
I.	Indriyasthāna.
Ka.	Kalpasthāna.
Ni.	Nidānasthāna.
Śā.	Śātrasthāna.
Si.	Siddhiṣṭhāna.
Su.	Suśrutasaṃhitā.
Sū.	Sūtrasthāna.
U.	Uttarasthāna, Uttaratāntra.
Vi.	Vimānasthāna.

Unverified references are marked with an asterisk.





## Introduction

The scientific literature of India, to a large extent written in Sanskrit, usually has not been a subject to which indologists felt attracted and has repeatedly been described as a neglected area of research.

The medical literature shared this fate, which may explain the paucity of critical editions and translations by Western scholars.

This situation has probably contributed to the fact that Indian medicine is a relatively neglected area in works on the history of medicine. Seen from a wider perspective, encompassing the great civilizations of the world, the medical art that originated in the Indian subcontinent deserves more attention than it has received. Like Greek medicine, it spread over a large area, comprising Central Asia and a large part of South-east Asia; Buddhist circles in China and Japan were interested in and influenced by it.

While Greek medicine lost its dominant position in the West, and lives on, restrictively, within Islamic medicine, as a transformed offshoot, Indian medicine can boast a continuous history, spanning more than two millennia, a living and still developing practice, and an ongoing literary activity.

European interest in the medical art and achievements of the Indians was keen in the period of colonial expansion. The rich and varied flora of the country and the actions attributed to a large number of medicinal plants were intensively studied. The *Coloquios* of Garcia da Orta and the monumental *Hortus Indicus Malabaricus* of Henricus Adrianus van Rheede van Draakenstein are outstanding examples of Portuguese and Dutch activities in this field respectively.

Some early representatives of Indology gave evidence of a considerable measure of curiosity towards Indian medicine and its materia medica in their writings. Several articles by no less a celebrity than Sir William Jones can be referred to as testimonies. Another famous scholar, Horace Hayman Wilson, also evinced the importance he attached to the subject in a number of publications.

It is not within the scope of this introduction to review and discuss the early contributions to the study of Indian medicine, which largely date from the nineteenth century. Those interested can find much suitable material in a publication by A. Roşu (1989: Introduction XLIII–LI), devoted to the pioneering work of G. Liétard and P. Cordier. The earlier interactions between Western and Indian physicians have been dealt with in an article by T.J.S. Patterson (1987).

Recent times show an undeniable surge of interest in non-Western systems of medicine, that of India included. The mere quantity of books on āyurveda in general and on the Indian medicinal flora in particular bear witness to this development. Unfortunately, their quality lags far behind their quantity. The majority of the authors

present a biased, historically unfaithful picture, obscuring some of the facts and thus distorting the truth.

A factual history of Indian medicine and its literature ought to show respect for both basic agreements and divergences of opinion expressed in the sources. Continuity in thought and practice and processes of change over the centuries should be described with an equal degree of attention and accuracy.

Actually, this is hardly ever to be seen.

The renaissance of āyurveda since about the middle of the nineteenth century - historically a fascinating phenomenon - made its protagonists and their epigones feel called upon to sketch a profile of this science that would be serviceable in the competitive struggle with Western medicine. The revival thus led to the construction of a unitary and coherent model of Indian medicine, weaned from inconsistencies and untenable concepts, and, particularly, as free from magical and religious elements as possible. The ancient terms for physiological and pathophysiological processes, nosological entities, etc., were diligently re-interpreted to bring them into line with terms derived from Western medicine. These procedures resulted in the appearance of a type of āyurveda that can best be designated as navyāyurveda or neo-āyurveda.

I have tried to find examples of the methods resorted to in this system and to illustrate the inappropriateness of the attempts to make āyurveda into for worldwide use.

In my view, Indian medicine is thoroughly embedded in the culture of the subcontinent and cannot adequately be studied and understood without acquaintance with its history and ways of thought. Conversely, knowledge of medical concepts will certainly illuminate problems that would otherwise remain obscure.

Medical treatises abound in material relevant to cultural history, and many non-medical texts contain data pertaining to medicine, which demonstrates that medical science constitutes an integral part of the Indian civilization.

A reliable and up-to-date history of Indian medicine and its literature is therefore unquestionably desirable. For a very long time, such a work has been a desideratum. Since the beginning of the twentieth century, no Western author has written a monograph on the subject.

J. Jolly's *Medicin*, written in German and published in 1901, surveys the medical literature concisely, in nineteen pages, and gives a still valuable summary of medical theory and practice. C.G. Kashikar, who translated J. Jolly's work into English (1951; second, revised edition 1977), provided it with supplementary notes, but after him no other author incorporated newly acquired knowledge in the existing survey or in a new publication.

In contrast with indologists of Western origin, Indian scholars produced a large number of books on the history of Indian medicine and its literature. Many of these are uncritical, but some are interesting and valuable. A few became relatively well known, whereas other publications, undeservedly, received almost no attention, being in Sanskrit, or, more often, in Hindī. The most important among these are frequently referred to in my annotations.

Girindranath Mukhopadhyaya's *History of Indian medicine* in three volumes

(1922–1929; second edition 1974) presents much useful information, as does the recent *History of medicine in India (from antiquity to 1000 A.D.)*, edited by P.V. Sharma (1992). Gurupada Hāldār's *Vṛddhatrayī* (1963), composed in Sanskrit and dealing mainly with the classical treatises and the authorities associated with them, has to be consulted with caution, due to the idiosyncratic views of the author.

Noteworthy publications in Hindī are Atrideva Vidyālaṅkāra's *Āyurved kā bhṛat itihās* (1960; second edition 1976), Kavirāj Vāgīśvar Śukla's *Sacitra āyurved kā itihās* (1952; second edition 1978) and Kavirāj Sūramcandra's *Āyurved kā itihās* (1952; second edition 1978). The books by Atrideva and V. Śukla are comprehensive and discuss a large proportion of medical literature, rasaśāstra included, while that by Sūramcandra is concerned with ancient authorities.

Some more books in Hindī to be read with profit are Ratnākar Śāstrī's *Bhārat ke prāpācārya* (1977), dealing extensively with a number of ancient authorities and their works, and *Prācīn bhārat meṃ rasāyan kā vikās* (1960) by Satyaprakāś, which is about a number of basic medical texts and a long series of works on rasaśāstra.

Among the works in Hindī mentioned so far, the most useful book is that by Atrideva.

Outstanding and of the first rank among the publications in Hindī is Priyavrat Śarmā's *Āyurved kā vaijñānik itihās* (1975). As indicated in its title, this is a comprehensive survey of medical literature gives evidence of a scientific attitude. For that reason, it is the one I most frequently refer to. The numerous books and articles by its industrious and prolific author have been a constant source of inspiration to me. In spite of my disagreement with opinions expressed by P.V. Sharma, he remains the Indian scholar I most esteem and admire.

The present work comprises the entire corpus of Sanskrit medical texts, from the earliest times to the present, thus covering about two millennia. Vedic medicine is not one of its subjects, since no exclusively medical treatises are known belonging to that branch of Indian literature. Those interested in this early stage may turn to the recent study of K.G. Zysk (1985) and the numerous earlier contributions. References to Vedic texts will be found in my annotations, whenever relevant. The same applies to texts forming part of the Buddhist Pali canon.

Treatises on medicine written in Prakrit or Pali have been included, as well as a few in Hindī.

Apart from the strictly medical texts, I incorporated a number of encyclopaedias with sections relating to medicine, some Purāṇas with medical chapters, and some Tantric works containing interesting material.

Siddha medical literature, mostly written in Tamil, has been left undiscussed, although a not inconsiderable number of the large body of texts is available in editions. My very limited competence in Tamil is the main reason for this omission.

The medical literature in Sanskrit that has been preserved in manuscripts is vast. Many important texts have been edited, some even very often, but a large mass remains unstudied. Many editions of lesser known treatises are rare and not easily accessible, because libraries possessing a sizable collection are few.

For the purpose of writing my survey I chiefly relied on my own collection of texts.

The secondary literature, extensive too, has been brought together during many years and derives for the most part from many Dutch libraries.

The texts described and analysed are therefore those that were available to me in editions. Manuscripts were not studied, except in a few cases, and manuscript catalogues have mostly been gone through unsystematically, depending on their degree of accessibility.

Text editions are provided with an asterisk in all cases where I did not set eyes on them. Editions present in the British Library and the India Office are recorded with their numbers as given in published catalogues, without an asterisk, because I consider the information to be trustworthy.

With the restrictions mentioned, the texts analysed in my survey constitute a large part of those thought to be of importance. Depending on the available data, the remaining ones are more concisely described or simply mentioned, with reference to my source or sources.

Besides the works on human āyurveda, those on veterinary medicine have been put in, since they form part of the same system of thought and practice.

Rasaśāstra (alchemy and iatrochemistry) and āyurveda are overlapping areas and became intimately connected with each other in the course of time. Many texts can only be classified as intermediate between the two or as belonging to both at the same time. For this reason my survey embraces the literature on rasaśāstra. The close alliance between rasaśāstra and ratnaśāstra (the science dealing with precious and semi-precious stones) made me accept works on this subject too.

The treatises on vrkṣāyurveda (the cultivation of trees, shrubs, etc., and the treatment of plant diseases) have been left out. The literature on this subject has been studied in a recent book by R.P. Das (1988).

My work is neither a continuous history of Indian medical literature, nor a history of Indian medicine that, in a chronological order, sketches progressive and regressive lines of development, losses and growth regarding theory and practice, changes in the materia medica and the types of preparations employed, etc., although a great deal of scattered information can be found in it.

The conviction that an ongoing story requires a preceding systematic review of the sources prompted me to begin this enterprise and kept me going. Now that this task has finally been accomplished, someone else may take upon himself the duty of composing a readable, yet accurate and detached, history of Indian medicine and its literature.

The coming into being of this survey has taken so many years that multiple traces of this long process of gestation will clearly show in the final product. A thorough harmonization of all the component parts proved to be impracticable.

One of my aims, however, made in an early stage and adhered to until the very end has been to adopt, as far as possible (mainly in volume II), one and the same basic scheme in my description of texts: contents first, special features next, and information on author and date at the end. The majority of the chapters have an alphabetical arrangement based on the names of authors. This principle has been given up in the chapters on nineteenth- and twentieth-century works, ordered according to their titles, on account of the difficulties presented by the names of Indian authors. It has also been abandoned

in the chapters on nāḍīśāstra (pulse-lore), pākāśāstra (cookery and the preparation of pākas) and rasaśāstra, where holding on to it appeared to have more disadvantages than merits. The successive order of the chapters is chronological whenever possible.

I am fully aware of the inconveniences resulting from my scheme, which will only be remedied by the publication of an index volume.

As far as my linguistic competence permits, the secondary literature has been digested or referred to, in particular in the annotations.

This history of Indian medical literature is, self-evidently, one of many of the histories that could have been written. The fact that it is by one single author, who constantly had the same point of departure in mind, explains a leading feature. The unremitting emphasis is on nosology, with the *Mādhavanidāna*, the most authoritative textbook in this field, as the fixed point of orientation. My training in both medicine and Indology has contributed to the decision to choose this perspective, and has, in general, greatly facilitated the realization of the aims of my project.

Some of the principles of my method and of the structure of this survey may be in need of clarification.

The two parts of volume I are devoted to four basic texts, their commentaries, and the authorities associated with these texts. The central position of these elaborate treatises and their influence on the later literature, which can therefore be designated as post-classical, made it not only unavoidable, but desirable, even necessary, to allot much space to their description, which, moreover, gave me the opportunity to refer to a large part of the secondary literature on many basic terms and concepts, and to provide cross-references. The four classical works are presented in the form of summaries, rather dissimilar from the synopses available for the *Carakasamhitā* and *Suśrutasamhitā*.

The annotations give references to the Indological, medical-historical and recent āyurvedic literature in order to supply readers from diverse backgrounds with information. I recognize the drawbacks of this laborious procedure, but, after weighing up the pros and cons, the advantages for readers seemed to outweigh the snags. In general, I aimed at placing Indian medicine within a broader cultural and historical context.

The post-classical literature covers the two parts of volume II. Although prominence has been given to well-known treatises, I sincerely attempted to maintain impartiality by faithfully describing a large number of texts regardless of their impact or age, in the firm conviction that too many have been disregarded or taken no notice of, and with the objective of furthering the study of historical developments, which are, whether large or small scale, influential or marginal, always of interest and worthy to be given fair treatment.

Some of my conclusions regarding authorship and date of classical works will be seen to conflict with cherished Indian traditions. I acknowledge this disrespect for tradition, born out of respect for the independence of scientific inquiry.

Finally, a few technical points have to be made.

Sanskrit words have been hyphenated according to the akṣaras (syllables) of the Nāgarī script.

The source of botanical names, if left unmentioned, is the *Wealth of India: Raw ma-*

terials, volumes I–XI (1948–1976) and its revised edition, volumes I–III (1985–1992).

The frontispieces are taken from the *Hortus Indicus Malabaricus* (1678–1693) of Henricus Adrianus van Rheedee van Draakenstein, as a tribute and mark of honour to this illustrious countryman, who deserves to be remembered by the author of a Dutch work on Indian medicine.

The responsibility for the errors and deficiencies of this work will be entirely mine. I am aware of some of its shortcomings. Reviewers, colleagues and friends are invited to identify weaknesses and blind spots outside the field of my consciousness. Their remarks will be appreciated by an author, who, as a psychiatrist and psychotherapist, sets great store by the salutariness of constructive criticism.

Part 1

Carakasamhitā





## Chapter 1

### Sūtrasthāna<sup>1</sup>

Chapter one,<sup>2</sup> called dīrghaṃjīvitīya, is the most heterogeneous of the whole sarphitā in its composition.

Verses 3–40 describe the descent of the divine āyurveda to earth. The āyurveda was transmitted by Brahmā<sup>3</sup> to Prajāpati,<sup>4</sup> by Prajāpati to the Aśvins, by the Aśvins to Indra.<sup>5</sup>

A large group of sages,<sup>6</sup> assembled on the slopes of the foothills of the Himālayas, sends Bharadvāja as their delegate to the abode of Indra,<sup>7</sup> in order to ask this god for help, because diseases had cropped up among the living beings, creating thus obstacles to a religious life.<sup>8</sup> Bharadvāja receives the āyurveda and passes his knowledge on to the other sages, among whom is Ātreya Punarvasu, who teaches the science in his turn to his six disciples. These six pupils, Agniveśa, Bhela, Jatūkarma, Parāśara, Hārīta and Kṣārapāṇi, put Ātreya's teaching down in writing. Agniveśa is mentioned as the one who was the first to compose a medical treatise based on Ātreya's exposition.<sup>9</sup>

Stories about the transmission of the āyurveda from divinities to human sages, similar to those found in the *Carakasamhitā* or of a more or less different character, occur in the *Suśrutasamhitā*, the works attributed to Vāgbhaṭa, the *Kāśyapaśamhitā*, *Hārītasamhitā*, Ugrāditya's *Kalyāṇakāraka*, Bhāvamīśra's *Bhāvaprakāśa*, and the *Bṛhannighaṇṭurātñākara*.<sup>10</sup> An independent tradition regarding the origin of āyurveda is presented by the *Brahmavaivartapurāṇa*.<sup>11</sup>

The Tibetan medical tradition developed its own version of the divine origin of the science.<sup>12</sup>

The large assembly of sages is a characteristic feature of the *Carakasamhitā*,<sup>13</sup> although not unique. A similar group met at the court of king Romapāda in order to be instructed in hastyāyurveda.<sup>14</sup> Part I of the Bower MS tells about a group of sages in the Himālayas who are interested in medicinal plants.

Parallels occur in non-medical treatises.<sup>15</sup> A long list, with partly the same names as those of the *Carakasamhitā*, is found in the *Bhāratiyanātyaśāstra*.<sup>16</sup> Meetings of numerous sages are also described in the *Mahābhārata*,<sup>17</sup> *Rāmāyaṇa*<sup>18</sup> and *Bhāgavatapurāṇa*.<sup>19</sup>

The sheer length of the list of sages (ṛṣi)<sup>20</sup> in the *Carakasamhitā* made Cakrapāṇidatta comment that it serves to remove sins (pāpakṣaya) and to show that the āyurveda is worthy of being honoured by great minds (mahāpuruṣa). The motley character of the group was noticed by Cakra; he divides the sages into yāyāvaras, śālīnas<sup>21</sup> and ayonijas (not born from a womb),<sup>22</sup> and into four categories: ṛṣika,

ṛṣiputra, devaṛṣi and maharṣi.<sup>23</sup> Later scholars also expressed their opinion on the remarkable heterogeneity of the assembled sages, who, in the Indian tradition, belong to different yugas, which precludes their meeting together.<sup>24</sup>

In my opinion, Caraka's list of sages, many of whom are known from Vedic literature, may have been inserted in order to stress the connection between āyurveda and the Vedic tradition, the orthodoxy of its teachings, and its association with the brāhmaṇas.

Chapter one continues, after this introductory part, with the actual subject-matter of the treatise, in discussing the terms āyus<sup>25</sup> and āyurveda (1.41–43).<sup>26</sup>

The next series of verses, 44–52, deal with Vaiśeṣika concepts and their application in āyurveda,<sup>27</sup> a subject not discussed in the *Bhelasamhitā*, *Suśrutasaṃhitā* and the works ascribed to Vāgbhaṭa.

S. Dasgupta claimed<sup>28</sup> that there are important differences between some concepts as defined in the *Carakasamhitā* and the corresponding ones in Vaiśeṣika texts. In his view, the terms sāmānya and viśeṣa in the *Carakasamhitā* have a significance quite different from what they have in the *Vaiśeṣikasūtras*; he asserted that, in the *Carakasamhitā*, the word sāmānya, which denotes a class in the Vaiśeṣika system,<sup>29</sup> means concrete things which have similar constituents or characteristics, while viśeṣa, denoting ultimate particulars in the Vaiśeṣika system, means concrete things which have dissimilar constituents or characteristics. This judgment has been refuted by A. Comba,<sup>30</sup> who argues that the use of the words sāmānya and viśeṣa in their literal meaning is not foreign to the Vaiśeṣika tradition at all.

The most important passages of the *Carakasamhitā* on the universals (sāmānya) and particulars (viśeṣa) are: Sū.1.28cd–29ab, which lists the six categories of Vaiśeṣika in the following order: sāmānya, viśeṣa, guṇa, dravya, karman, and samavāya; 1.44, which describes the causality of sāmānya and viśeṣa; 1.45, which defines these concepts through characteristics useful in medicine.

The first of these passages enumerates the categories in an unusual order; sāmānya and viśeṣa are the fourth, respectively fifth category in Vaiśeṣika texts; both terms are used in their technical, not their literal, meaning on this occasion. The other passages employ the term sāmānya in its technical sense, i.e., it denotes the category, whereas the term viśeṣa does not denote the category of this name, the ultimate particular, but the universal-particular (sāmānyaviśeṣa) in its differentiating aspect; the ultimate particulars (antyaviśeṣa) are regarded as useless in medical theory.<sup>31</sup>

A. Comba concluded in her study that the *Carakasamhitā* defines the universals and particulars differently from the *Vaiśeṣikasūtras*. By means of metonymies and ellipses, the *Carakasamhitā* points out the gnoseological function, at once unifying and differentiating, of the universal-particulars, rather than deducing their existence.

This led her to think that the *Carakasamhitā* takes for granted the demonstration of the universals in Kaṇāda's *Vaiśeṣikasūtras*, which implies that the latter are not dependent on speculations developed in medical circles, contrary to the opinions on this issue put forward by D. Chattopadhyaya.<sup>32</sup>

S. Dasgupta<sup>33</sup> remarked that the *Carakasamhitā* seems to take its start from the Vaiśeṣika. He expressed as his view<sup>34</sup> that Caraka's definition of sāmānya and viśeṣa shows that they were then not yet counted as separate categories, as in the later

Vaiśeṣika; Caraka's sūtras were in his opinion probably written at a time when the Vaiśeṣika doctrines were undergoing changes, and compendia were beginning to appear; he supposed that a compendium like the *Bhāṣāpariccheda* might have been available to the author.<sup>35</sup>

Verses 46–47 describe the puruṣa (= puruṣa), who is the subject (adhikaraṇa) of the science of life, as a combination (saṃyoga) of three constituents (tridaṇḍa): sattva (= manas), ātman and body (śarīra).<sup>36</sup>

Verse 48 is concerned with the category dravya (substance),<sup>37</sup> in agreement with Vaiśeṣika doctrine, the substances are nine in number: the five mahābhūtas,<sup>38</sup> ātman, manas, time (kāla) and space (dīś); this enumeration of what are called the kāraṇadravyas is followed by an arhaśloka on the kāryadravyas, divided into sentient (cetana) and insentient (acetana).<sup>39</sup>

The categories guṇa and karman are dealt with in verse 49. The guṇas, forty-one in number, are divided into three groups by Cakrapāṇidatta in his commentary: vaiśeṣika-, sāmānya- and ātma-guṇas. The vaiśeṣikaguṇas are the objects (artha) of the senses (smell, taste, etc.); this agrees with Vaiśeṣika thought.<sup>40</sup> The qualities referred to as gurvādayaḥ in Ca.Sū.1.49 are sāmānyaguṇas; they consist of ten pairs of opposites, listed at Ca.Sū.25.36 and Śā.6.10, and by Cakra ad Ca.Sū.1.49: guru (heavy) and light (laghu), śīta (cold) and uṣṇa (hot), snigdha (oleaginous) and rūkṣa (dry), manda (sluggish) and tūkṣṇa (sharp), sthira (solid) and sara (flowing), mṛdu (soft) and kaṭhina (hard), viśāda (clear) and picchila (mucilaginous), ślakṣṇa (smooth) and khara (rough), sthūla (gross) and sūkṣma<sup>41</sup> (subtle), sāndra (viscid) and drava (liquid);<sup>42</sup> a similar list is not known from Vaiśeṣika literature. Buddhi and the list ending with prayatna, referred to in Ca.Sū.1.49, constitute the ātma-guṇas, a subject discussed in Śāṅkharasthāna 1.<sup>43</sup> A second series of sāmānyaguṇas is alluded to as parādayaḥ; the items of this list are enumerated at Ca.Sū.26.29–30ab.<sup>44</sup> Karman is defined as movement (ceṣṭita), of the nature of effort, etc. (prayatnāḥ).<sup>45</sup>

Samavāya is defined in verse 50 as the relation of inseparable inference (apṛthagbhāva), as in the case of earth and other substances and their qualities; this relation is said to be eternal (nitya). Cakra describes it, in agreement with Praśastapāda's commentary on the *Vaiśeṣikasūtras*, as the invariable co-existence (ayutasiddhi) of substance (ādhāra) and that which exists in it (ādhārya).<sup>45</sup>

Verse 51 defines dravya (substance) as that in which inhere karman and guṇa and which is a samavāyikāraṇa (inherent cause). This definition is qualified by Cakrapāṇi, because karman does not inhere in the mahābhūtas.<sup>46</sup> The same verse defines guṇa as being inherent (samavāyin) (in a substance), devoid of action (niśceṣṭa),<sup>47</sup> and causative (kāraṇa).<sup>48</sup>

Verse 52 describes karman, in conformity with Vaiśeṣika views, as inherent in substance, causative of conjunction (saṃyoga) and disjunction (vibhāga), and independent of other factors (nānyad apekṣate).<sup>49</sup>

Chapter one then turns to concepts which are important in medical theory. Equilibrium of the dhātus (constituent elements of the body) is the object of the medical science, to be achieved by appropriate measures (kriyā) (1.53).

The threefold cause of bodily and mental disorders is the improper (mithyāyoga),<sup>50</sup> deficient (ayoga) and excessive (atiyoga) contact with time, buddhi and the objects of the senses (1.54), a subject more thoroughly discussed in Ca.Sū.11.

The body and the sattva<sup>51</sup> are the seats of both diseased and healthy states of man; a proper contact (samayoga) with the aforesaid factors is the cause of well-being (1.55).

Verse 56 characterizes the ātman.

Verse 57 enumerates the three bodily doṣas:<sup>52</sup> vāyu, pitta and kapha, and the two mental (mānasa) doṣas: rajas and tamas.<sup>53</sup> Verse 58 declares that the bodily doṣas are appeased by remedial measures (auśadha),<sup>54</sup> which are of two types: daivavyapāśraya and yuktivyapāśraya;<sup>55</sup> the mental doṣas are pacified by means of jñāna, vijñāna,<sup>56</sup> dhairya, smṛti and samādhi.

The qualities of the doṣas and, by implication, the qualities of medicinal substances alleviating excited doṣas, are dealt with in verses 59–61.<sup>57</sup>

The general principle on which the treatment of curable diseases is based is sketched in verses 62–63. Verses 64–66 are about the tastes, their relationships with the mahābhūtas and those with the doṣas.

Verse 67 divides medicinal substances into three groups: doṣapraśamana, dhātupradūṣaṇa and svasthāvṛtti(kara).<sup>58</sup> Verses 68–74ab<sup>59</sup> divide drugs, according to their source, into jāṅgama, bhauma (or pārthiva) and audbhida, i.e., of animal, inorganic and vegetable origin;<sup>60</sup> many substances and clusters of substances belonging to these groups are enumerated.<sup>61</sup>

Verses 74cd–119 describe sixteen plants with useful roots (mūlinī; 1.77–80), nineteen plants with useful fruits (phalinī; 1.81–86ab),<sup>62</sup> four fatty substances (mahā-sneha; 1.86cd–88ab), five salts (1.88cd–92ab),<sup>63</sup> eight kinds of urine<sup>64</sup> and milk (1.92cd–113),<sup>65</sup> and six trees<sup>66</sup> used in evacuation (śodhana; 1.114–118).<sup>67</sup>

Verses 120–135 state that a good physician should not only be acquainted with the names and characteristics of drugs, but in particular with their proper administration, on which therapeutic success depends.

Verses 136–140 summarize the contents of the chapter.<sup>68</sup>

Chapter two, called apāmārgataṇḍulīya,<sup>69</sup> deals with drugs useful in vamaṇa (emesis) and virecana (purgation) (2.1–16); both treatments, which, taken together, are identical with the śodhana (evacuation) of Sū.1.76, form part of the complex procedure called pañcakarman, elaborately described in the Siddhisthāna.<sup>70</sup>

Many of the substances of this part of chapter two are already mentioned in Ca.Sū.1.74cd–119.

The medicinal plant apāmārga is the first one appearing in chapter two because it is the main drug used in evacuation of the head.<sup>71</sup> Madana (2.7) is the main drug among the emetics,<sup>72</sup> trivṛtā (2.9) among the purgatives.<sup>73</sup>

The second part of chapter two describes twenty-eight medicinal gruels (yavāgū; 2.17–34),<sup>74</sup> employed in the dietetic regimen after a course of pañcakarman, especially if improperly carried out.<sup>75</sup>

Chapter three, called āragvadhīya,<sup>76</sup> describes thirty-two<sup>77</sup> preparations called cū-

ṛṇapradeha,<sup>78</sup> to be used for the purpose of external purification after proper evacuation of the patient.<sup>80</sup>

A cūrṇapradeha is a powdered drug (cūrṇa), sprinkled over a spot already smeared with an oil, and rubbed for some time.<sup>81</sup>

Chapter four, called ṣaḍvirecanaśatāśrīṭīya,<sup>82</sup> discusses evacuative (virecana) preparations.<sup>83</sup>

Six hundred of these preparations will be dealt with briefly in this chapter, to be described more fully later, in the Kalpopaniṣad (= Kalpasthāna).<sup>84</sup> The numbers of the preparations to be described in the twelve chapters of the Kalpasthāna are announced.

The milky sap (kṣīra), roots, bark, leaves, flowers and fruits of plants are employed (4.5) in the preparations, which are henceforth referred to as kaṣāyas in this chapter. The salt taste is unsuitable, the other five tastes are suitable in a kaṣāya (4.6).

Five types of kaṣāya are distinguished, arranged according to their decrease in strength: svarasa (freshly expressed juice), kalka (paste), śrta (decoction), śīta (cold infusion), and phāṇṭa (hot infusion).<sup>85</sup> The definitions of these types are given in some interpolated verses.<sup>86</sup>

Ten large groups (varga) of mahākaṣāyas are distinguished, subdivided into fifty smaller groups with specific actions;<sup>87</sup> each of these smaller groups comprises ten items, consisting of plants or plant products.<sup>88</sup> One and the same plant may be found in more than one of these groups of ten.<sup>89</sup>

The groups begin with medicinal substances which are jīvanīya (vitalizing) and end with those which are vāyasthāpana (preserving youthful vigour), thus stressing the rasāyana aspect of āyurveda. The arrangement, names and actions of the fifty groups are remarkable in several respects and suggest that Sū.4 may represent an old part of the *Carakasamhitā*.

Substances called virecana in a broad sense are said to be the subject of the chapter, but, actually, a very small part of the groups of ten drugs belongs to this category.<sup>90</sup> Many groups consist of specifics against particular disorders,<sup>91</sup> drugs acting on particular regions of the body<sup>92</sup> or particular bodily constituents,<sup>93</sup> drugs with particular general effects,<sup>94</sup> etc. Some groups are specifically active against disorders not described as distinct diseases in the *Carakasamhitā*.<sup>95</sup>

Chapter five, called mātṛāśrīṭīya,<sup>96</sup> is concerned with daily regimen.<sup>97</sup>

The subjects are: the suitable quantities of light and heavy articles of food, which are dependent on the power of one's digestion (agnibala) (5.3–13);<sup>98</sup> the application of collyria (añjana) (5.14–20ab);<sup>99</sup> smoking (dhūmapāna) as a daily routine<sup>100</sup> and for therapeutic purposes (5.20cd–56ab);<sup>101</sup> the preparation of anūtaila and its use as a snuff (5.56cd–71ab);<sup>102</sup> teeth-cleaning (dantapavana; 5.71cd–74ab);<sup>103</sup> tongue-scraping (jihvānīrlekhaṇa; 5.74cd–76ab);<sup>104</sup> keeping fragrant substances in the mouth (5.76cd–77);<sup>105</sup> the use of gargles (gaṇḍūsa; 5.78–80);<sup>106</sup> rubbing the head with oil (mūrdhatailaniṣeṇa; 5.81–83);<sup>107</sup> the use of eardrops (kaṇṭatarpaṇa; 5.84);<sup>108</sup> massage of the body and the feet with oil (śnehābhyāṅga; 5.85–92);<sup>109</sup> rubbing the body all over (śarīraparimārjana; 5.93); bathing (snāna; 5.94);<sup>110</sup> wearing

clean clothes (5.95); the uses of fragrant substances, garlands, gems and ornaments (5.96–97);<sup>111</sup> hygiene of feet and excretory orifices (5.98);<sup>112</sup> hair- and nail-cutting (5.99);<sup>113</sup> the use of footwear,<sup>114</sup> umbrella,<sup>115</sup> and stick (5.100–102).<sup>116</sup>

Chapter six, called tasyāśītīya, discusses physiological changes during the seasons and the recommended seasonal regimen (ṛtucaryā).<sup>117</sup>

The subjects are: the importance of seasonal regimen (6.3); the year is divided into six seasons; the period in which the sun courses northwards (udagayana), known as ādāna, consists of the seasons beginning with śiśira (the cool season) and ending with grīṣma (summer); the period in which the sun courses southwards, called visarga, consists of the seasons beginning with varṣāḥ (the rainy season) and ending with hemanta (winter) (6.4);<sup>118</sup> the main characteristics of visarga and ādāna<sup>119</sup> (6.5–8); the characteristics of hemanta and the regimen to be observed (6.9–18); the characteristics and regimen pertaining to śiśira (6.19–21), vāsanta (spring) (6.22–26), grīṣma (6.27–32), varṣāḥ (6.33–40), and śarad (autumn) (6.41–48); the definition of okāśātmya (one's adjustment as to diet and behaviour to the region of residence) (6.49–50).

Chapter seven, called navegāndhāraṇīya,<sup>120</sup> is concerned with the unwholesome effects of the suppression of natural urges (vegadhāraṇa)<sup>121</sup> and other subjects.

The thirteen urges not to be suppressed are those relating to urination, defecation, ejaculation, passing flatus, vomiting, sneezing, eructation, yawning, hunger, thirst, shedding tears, sleep, and heavy breathing caused by exercise. The symptoms resulting from suppression and the treatment of these syndromes are described (7.3–25).<sup>122</sup>

The next series of verses enumerate urges that should be suppressed as being morally condemnable (7.26–30).<sup>123</sup>

Some verses are devoted to the proper use of physical exercise (vyāyāma; 7.31–33).<sup>124</sup> Excessive indulgence in physical exercise, laughing, talking, travelling, sexual intercourse and waking by night is warned against (7.34–35). Those who should avoid physical exercise are described (two additional verses).<sup>125</sup> The proper way to get out of bad habits is described (7.36–38).<sup>126</sup>

The remaining subjects dealt with are: the constitutions (prakṛti; 7.39–41);<sup>127</sup> bodily orifices and channels obstructed by excreta and secretions (7.42–43); general causes of endogenous (nija) and exogenous (āgantū) diseases and their treatment (7.44–55);<sup>128</sup> persons with whom one should not associate and persons whose company is to be recommended (7.56–59); rules about the intake of thick sour milk (dadhi; 7.61–62).

Chapter eight, called indriyopakramaṇīya,<sup>129</sup> gives an account of the five sensory faculties<sup>130</sup> and mind<sup>131</sup> (8.3–17),<sup>132</sup> followed by rules of conduct, which refer to numerous Hindu practices (8.18–29).<sup>133</sup>

Among the persons to be shunned (8.19) is a bhrūṇahan, explained by Cakra as a garbhaghātaka, i.e., someone who kills an embryo or foetus, thus inducing an abortion.<sup>134</sup> A Vedic mantra is quoted (8.28).<sup>135</sup> Friendship (maitrī) and compassion (kāruṇya) are among the recommended virtues (8.29).<sup>136</sup>

Chapter nine, called *khuddākacatuṣpāda*, forms the short exposition on the four 'pillars of treatment': the physician, the drug, the attendant and the patient.<sup>137</sup>

Chapter ten, called *mahācatuṣpāda*,<sup>138</sup> is, to a certain extent, a continuation of chapter nine.

The 'four pillars' are referred to at the beginning of the chapter. *Punarvasu* Ātreya is reported to declare that rational (*yuktiyukta*) treatment leads to freedom from disease. He is contradicted by *Maitreya*, who states that people recover or die from disease, irrespective of treatment.<sup>139</sup> Ātreya replies that successful treatment depends on correct knowledge concerning curable (*sādhya*) and incurable (*asādhya*) diseases (10.3–8).<sup>140</sup>

Curable diseases are divided into two categories: easily curable (*sukhasādhya*) and curable with difficulty (*kṛcchrasādhya*). Curable diseases are also of three grades (*alpa*, *madhya*, *utkṛṣṭa*). Incurable diseases are either amenable to palliative treatment (*yāpya*) or intractable (*anupakrama*); grades are not distinguished. These categories are characterized (10.9–20).<sup>141</sup>

Chapter eleven, called *tisraīṣaṇīya*,<sup>142</sup> discusses the three desires (*eṣaṇā*):<sup>143</sup> the desire for a long life (*prāṇaiṣaṇā*), for wealth (*dhanaiṣaṇā*) and for the other world (*paralokaiṣaṇā*).<sup>144</sup>

The existence of the other world and of rebirth (*punarbhava*)<sup>145</sup> is defended against the views of opponents<sup>146</sup> and established through the four means of examination (*parīkṣā*):<sup>147</sup> *āptopadeśa* (authoritative statement), *pratyakṣa* (perception), *anumāna* (inference)<sup>148</sup> and *yukti* (reasoning).

The fourfold examination is described and applied to the problem whether or not rebirth is a reality. The result of this investigation is positive, which justifies the desire for the other world (11.3–33).<sup>149</sup>

The remaining part of the chapter is devoted to threefold classifications: the three subordinate supports (of life) (*upastambha*), consisting of diet (*āhāra*), sleep (*svapna*) and celibacy (*brahmacarya*);<sup>150</sup> the three types of strength (*bala*): dependent on one's constitution (*sahaja*), on time (*kāla*) and one's way of life (*yuktikṛta*); the three basic causes (*āyatana*) of diseases: unsuitable contact of the senses with their objects (*asāmyendriyārthasamyoga*), behaviour based on errors in judgment (*prajñāparādha*),<sup>151</sup> and abnormal seasonal variations (*pariṇāma*); the three categories of diseases: endogenous (*nija*), exogenous (*āgantū*)<sup>152</sup> and mental (*mānasa*); the three pathways (*mārga*) of diseases:<sup>153</sup> the branches (*śākhā*), the vulnerable points (*marman*) together with the joints, and the viscera (*koṣṭha*), also called the peripheral (*bāhya*), middlemost (*madhyama*) and central (*ābhyantara*) pathway;<sup>154</sup> the three types of physicians: fraudulent ones (*chadmacara*), those imitating a physician's behaviour (*siddhasādhita*, *pratirūpaka*), and the genuine ones; the three types of treatment: spiritual (*daivavyapāśraya*), rational (*yuktiyapāśraya*) and psychological (*sattvāvajaya*);<sup>155</sup> the three types of somatic therapy: internal purification (*antaḥparimārjana*), external purification (*bahihparimārjana*)<sup>156</sup> and surgical intervention (*śāstrapraṇidhāna*)<sup>157</sup> (11.34–55).

Surgical interventions mentioned are: *chedana* (excision), *bhedana* (incision), *vyadhana* (puncturing), *dāraṇa* (rupturing), *lekhana* (scraping), *utpāṭana*,<sup>158</sup> *pracchana*

(scarification), sīvana (suturing), eṣaṇa (probing), kṣāra (the application of caustics), and jalaukas (the application of leeches) (11.55).<sup>159</sup>

Chapter twelve, called vātakalākālīya,<sup>160</sup> is in the form of a conversation among a group of sages<sup>161</sup> on the merits and demerits of vāta as a cosmical element<sup>162</sup> and a constituent of the body.<sup>163</sup>

The questions to be discussed by the sages are: the qualities of vāta, the factors leading to its excitement and its pacification, the way in which these factors affect the incorporeal (asamghātavant) and unsteady (anavasthita)<sup>164</sup> vāta, and the actions of vāta outside and inside the body.

Kuśa Sāṃkrītyāyana enumerates the six qualities of vāta.<sup>165</sup> Kumārasīras Bharaḍvāja agrees and adds that vāta is excited by substances and actions with similar qualities. Kāṅkāyana, the physician from Bāhlīka, explains that pacification of excited vāta is brought about by factors with opposite qualities. Baḍiśa Dhāmārgava discusses the way in which vāta is affected by these aggravating and alleviating factors. Vāryovida talks about the normal functions of vāta, the afflictions it brings about in the human organism when excited, and the normal and abnormal actions of vāta in the external world, adding observations on Vāyu as a deity, who is identical with Yama, Prajāpati, Aditi, Viśvakarman and Viṣṇu. Marīci asks Vāryovida how this knowledge can be applied to medical practice. Vāryovida replies that a correct understanding of the normal and abnormal actions of vāyu enables a physician to give sound advice to his patients. Marīci objects that pitta is the main agent in health and disease. Kāpya brings forward that kapha is mainly responsible for normal and abnormal states of the human organism.

At the end of this discussion, Punarvasu Ātreya declares that all three dhātus, vāyu, pitta and kapha, should duly be taken into consideration in the assessment of health and disease.

Chapter thirteen, on sneha,<sup>166</sup> is devoted to Punarvasu's answers to Agniveśa's queries about oleation therapy (sneha),<sup>167</sup> a type of treatment related to pañcakarman,<sup>168</sup> and especially important in counteracting disturbances of vāta.

Punarvasu states that the fatty substances (sneha) used in medicine are of vegetable and animal origin. He gives a list of these substances, explains their properties and actions, the proper time of their administration, and mentions the anupānas to be taken (13.9–22).<sup>169</sup>

Twenty-four varieties of preparations containing a sneha (pravacāraṇā) are enumerated (13.23–25). The total number of fatty preparations is sixty-four (13.27–28).<sup>170</sup> Patients who require a high, medium or low dose of a sneha are mentioned (13.29–40).<sup>171</sup> Patients preferentially to be treated with ghee, oil, muscle fat or bone-marrow are discussed (13.41–50).<sup>172</sup>

The next subjects are: the maximum and minimum duration of a treatment with sneha (13.51);<sup>173</sup> patients suitable and unsuitable to sneha (13.52–56);<sup>174</sup> signs of defective, proper and excessive treatment (13.57–59);<sup>175</sup> preparatory measures (13.60–61); rules to be observed during treatment (13.62–64);<sup>176</sup> differences in



the course of treatment between persons with soft (mr̥dukoṣṭha) and hard bowels (kr̥urakoṣṭha) (13.65–69);<sup>177</sup> complications (vyāpatti; 13.70–79);<sup>178</sup> after-treatment (13.80–81); fatty preparations for patients to whom the usual ones are not suitable (13.82–95);<sup>179</sup> the absorption of a sneha (13.96–97); addition of salt to a sneha enhances its action (13.98).<sup>180</sup>

Sudation (sveda) should follow the treatment with a sneha; the next step consists of purification (saṃśodhana) (13.99).<sup>181</sup>

Chapter fourteen is concerned with sudation (sveda),<sup>182</sup> useful in disorders caused by vāta and kapha.

General rules are dealt with first (14.3–12),<sup>183</sup> followed by the signs of proper treatment and over-sudation (14.13–15).<sup>184</sup> Indications and contra-indications are discussed (14.16–24).<sup>185</sup>

The materials used in piṇḍasveda (bolus sudation)<sup>186</sup> are enumerated; they can also be employed in prastarasveda (14.25–27).<sup>187</sup> The next verses are about the materials for jentākasveda (14.28),<sup>188</sup> nāḍisveda (14.29–33), sudation in a tub (koṣṭha; 14.34),<sup>189</sup> and upanāhasveda (14.35–37).<sup>190</sup>

Thirteen types of sudation which require heating by fire<sup>191</sup> are described: saṃkara- (bolus sudation;<sup>192</sup> 14.41),<sup>193</sup> prastara- (sudation on a layer of suitable material; 14.42),<sup>194</sup> nāḍi- (sudation by means of a tube; 14.43),<sup>195</sup> pariṣeka- (sudation by means of showers; 14.44),<sup>196</sup> avagāha(na) (sudation in a bath; 14.45),<sup>197</sup> jentāka- (sudation in a specially constructed room, resembling a sauna; 14.46),<sup>198</sup> aśmaghana- (sudation on a heated stone-slab; 14.47–50a),<sup>199</sup> karṣu- (sudation over a trench; 14.50b–51), kuṭi- (sudation in a cottage constructed for the purpose; 14.52–54),<sup>200</sup> bhū- (sudation of the same type as aśmaghana, but the patient lies on a heated layer of earth; 14.55), kumbhī- (sudation by means of a half-buried pitcher, filled with heated iron balls or stones; 14.56–58), kūpa- (sudation over a pit filled with heated dung; 14.59–60), and holākasveda (sudation over a dhātīkā, i.e., a heap of heated dung; 14.61–63).<sup>201</sup>

The ten types of sudation without the application of fire consist of physical exercise (vyāyāma), uṣṇasādana (residing in a non-heated warm room), warm clothing (guruprāvaraṇa), hunger, drinking of large quantities of water, fear, anger, poultices (upanāha), wrestling (āhava), and exposure to the sun (ātapa) (14.64–65ab).<sup>202</sup>

Sudation is of six general types: involving the application of fire or not involving it, applied to the whole body or part of it, oleaginous (against vāta disorders) or dry (against kapha disorders) (14.65cd–66).<sup>203</sup> The chapter ends with rules for after-treatment (14.67).<sup>204</sup>

Chapter fifteen, called upakalpanīya, on the equipment of a physician, describes a kind of infirmary,<sup>205</sup> with its personnel<sup>206</sup> and equipment,<sup>207</sup> suitable to the treatment of persons of high social status<sup>208</sup> with a full course of pañcakarman. Vamana (emesis) and virecana (purgation)<sup>209</sup> are dealt with in detail.<sup>210</sup>

Chapter sixteen, called cikitsāprabhṛtīya,<sup>211</sup> about the functions of a physician fully equipped for treatment (cikitsāprabhṛta), is a continuation of chapter fifteen.

The signs of proper, inadequate and excessive treatment with emetics and purgatives are described (16.5–11),<sup>212</sup> followed by the symptoms of someone full of doṣas who is in need of evacuative therapy (16.13–16). The merits of evacuative measures are dealt with (16.17–21)<sup>213</sup> and the treatment of disorders due to their improper application (16.22–26).<sup>214</sup>

In reply to a question put by Agniveśa, Ātreya expounds that the function of a physician consists of the restoration of the equilibrium of the dhātus (16.29–38).<sup>215</sup>

Chapter seventeen, called *kiyantaḥśirasiya*, deals with a number of different subjects.

The diseases of the head (*śīroroga*) are discussed first because the head is the chief part (*uttamāṅga*) of the body, being the place where the vital breaths (*prāṇāḥ*) and the senses are located (17.12). A long series of disorders affecting the head is enumerated (17.13–14).<sup>216</sup> The *śīrorogas* in a restricted sense are five in number; they are caused by *vāta*, *pitta*, *kapha*, all the three doṣas together, and parasites (*krimi*) (17.15–29).<sup>217</sup> The same five types of heart disease (*hṛdroga*) are described (17.30–40).<sup>218</sup>

The total number of disturbances of the doṣas, with increase or decrease of one, two or three of them, and with combinations of increase and decrease, is sixty-two. These disturbances are classified into groups and their signs described (17.41–62).<sup>219</sup>

The signs of deficiency of the seven elements of the body (*dhātu*),<sup>220</sup> the seven impurities (*mala*)<sup>221</sup> and *ojas*<sup>222</sup> are listed;<sup>223</sup> *ojas* is characterized, followed by the causes of its decrease<sup>224</sup> (17.63–77).<sup>225</sup>

The causes of *madhumeha* are discussed; the seven kinds of boils (*piḍakā*), which arise when this disease is neglected, are described.<sup>226</sup> Their names are: *śarāvikā*, *kacchapikā*,<sup>227</sup> *jālinī*,<sup>228</sup> *śarṣapī*, *alajī*,<sup>229</sup> *vinatā* and *vidradhi* (17.78–89).<sup>230</sup>

A more elaborate account of *vidradhi* (an abscess) follows. This disorder is of two types: external (*bāhyā*) and internal (*ābhyantarī*).<sup>231</sup> The causes of the internal type, the symptoms of its four doṣic varieties, the symptoms dependent on its location, and the curability or incurability of the varieties are dealt with (17.90–103).<sup>232</sup> The curability and incurability of all seven types of *piḍakā* is taken notice of (17.105–107).<sup>233</sup>

Other boils, independent of *prameha*, are also acknowledged (17.104 and 108–111).<sup>234</sup>

The movement (*gati*) of the doṣas is of three types: (1) decrease (*kṣaya*), constancy (*sthāna*) and increase (*vṛddhi*); (2) upward, downward and sideways movement; (3) location in the viscera, the branches of the body, and the vulnerable points, together with the joints (17.112–113).<sup>235</sup> A fourth type, dependent on the seasons, is added; it consists of accumulation (*caya*), excitement (*prakopa*) and pacification (*praśama*);<sup>236</sup> two varieties are distinguished: normal (*prākṛtī*) and abnormal (*vaikṛtī*) (17.114–118).

Chapter eighteen, called *triśothīya*, gives an account of swellings (*śoṭha*).<sup>237</sup>

These disorders are caused by *vāta*, *pitta* and *kapha*; they are either endogenous (*nija*) or exogenous (*āgantū*) (18.3). The aetiology and symptomatology of these types are described (18.4–15). Varieties difficult to be cured are dealt with (18.16–17). The complications are enumerated (18.18).<sup>238</sup>

A long series of local swellings is described: *upajihvikā* (18.19),<sup>239</sup> *galaśuṇḍikā*

(18.20),<sup>240</sup> galagaṇḍa (18.21),<sup>241</sup> galagraha (18.22),<sup>242</sup> visarpa (18.23),<sup>243</sup> piḍakā (18.24),<sup>244</sup> tilaka (18.25),<sup>245</sup> pīplu (18.25),<sup>246</sup> vyaṅga (18.25),<sup>247</sup> nīlikā (18.25),<sup>248</sup> śaṅkhaka (18.26),<sup>249</sup> karṇamūlaśoṭha (18.27),<sup>250</sup> plīhābhivṛddhi (18.28),<sup>251</sup> gulma (18.29),<sup>252</sup> vṛddhi (18.30),<sup>253</sup> udara (18.31),<sup>254</sup> ānāha (18.32),<sup>255</sup> adhimāṃsa (18.33),<sup>256</sup> arbuda (18.33),<sup>257</sup> and rohiṇī (18.34–36).<sup>258</sup>

The classification of diseases is discussed again. Mild (mṛḍu) and severe (dāruṇa) diseases are distinguished (18.37–47).<sup>259</sup>

Some functions of vāta, pitta and kapha are enumerated (18.48–53).

Chapter nineteen, called aṣṭodarīya,<sup>260</sup> begins with enumerations of diseases of which there are eight to two varieties, one type only, or twenty varieties. The total number of these groups is forty-eight (19.3). The varieties belonging to each group are listed (19.4).

There are eight varieties of udara,<sup>261</sup> mūtrāghāta,<sup>262</sup> kṣīradoṣa,<sup>263</sup> retodoṣa (defects of semen),<sup>264</sup> seven varieties of kuṣṭha,<sup>265</sup> piḍakā,<sup>266</sup> visarpa,<sup>267</sup> six varieties of atisāra<sup>268</sup> and udāvarta,<sup>269</sup> five varieties of gulma,<sup>270</sup> plīhadoṣa,<sup>271</sup> kāsa,<sup>272</sup> śvāsa,<sup>273</sup> hikkā,<sup>274</sup> tṛṣṇā,<sup>275</sup> chardi,<sup>276</sup> bhaktānaśana,<sup>277</sup> śīroroga,<sup>278</sup> hṛdroga,<sup>279</sup> pāṇḍuroga,<sup>280</sup> unmāda,<sup>281</sup> four varieties of apasmāra,<sup>282</sup> akṣiroga,<sup>283</sup> karṇaroga,<sup>284</sup> pratiśyāya,<sup>285</sup> mukharoga,<sup>286</sup> grahaṇīdoṣa,<sup>287</sup> mada,<sup>288</sup> murchāya,<sup>289</sup> śoṣa,<sup>290</sup> klaibya,<sup>291</sup> three varieties of śoṭha,<sup>292</sup> kilāsa,<sup>293</sup> raktapitta,<sup>294</sup> two varieties of jvara,<sup>295</sup> vraṇa,<sup>296</sup> āyāma,<sup>297</sup> grdhrasī,<sup>298</sup> kāmālā,<sup>299</sup> āma,<sup>300</sup> vātarakta,<sup>301</sup> arśas.<sup>302</sup>

Diseases of one type only are ūrustambha,<sup>303</sup> saṃnyāsa,<sup>304</sup> and the major disease (mahāgada) called atattvābhiniṣeṣa.<sup>305</sup>

Parasites (krimi) are of twenty kinds.<sup>306</sup> Twenty varieties of prameha<sup>307</sup> and yonivyāpad<sup>308</sup> are enumerated.

Some diseases are not mentioned in the list; aśmarī, kṣataksṇiṇa and madāyāya are absent.<sup>309</sup> Remarkable is the classification of āyāma and grdhrasī, separate from the vāta diseases to which they belong, and of kāmālā, separate from pāṇḍuroga.

The chapter ends with statements stressing that all the endogenous (nija) disorders arise from the three doṣas (19.5–6) and, finally, a verse on the connections between endogenous and exogenous disorders (19.7).

Chapter twenty, called mahāroga, begins with an exposition on endogenous and exogenous diseases (20.3–7),<sup>310</sup> followed by the main seats of the doṣas (20.8).

The larger part of the chapter is devoted to the nānātmaja disorders,<sup>311</sup> which are contrasted with those called sāmānyaja,<sup>312</sup> discussed in the preceding chapter. The nānātmaja disorders of vāta, pitta and kapha are enumerated, together with signs enabling a physician to determine which doṣa is disturbed in a particular disorder. The general management of disturbances of vāta, pitta and kapha is also dealt with.

The nānātmaja disorders of vāta are eighty in number:<sup>313</sup> nakhabheda (cracking of nails),<sup>314</sup> vipādikā,<sup>315</sup> pādaśūla (piercing pain in the feet),<sup>316</sup> pādabhraṇśa,<sup>317</sup> pāda-suptatā (insensibility of the feet),<sup>318</sup> vātakhuḍḍatā,<sup>319</sup> gulphagraha,<sup>320</sup> piṇḍikodveṣṭaṇa (cramps in the calves),<sup>321</sup> grdhrasī (sciatica),<sup>322</sup> jānubheda (tearing pain in the knees),<sup>323</sup> jānuviśleṣa (dislocation of the knee or kneecap),<sup>324</sup> ūrustambha (stiffness

of the thighs),<sup>325</sup> ūrusāda (weakness of the thigh muscles),<sup>326</sup> pāṅgulya (lameness of the legs),<sup>327</sup> gudabhrāmśa (prolapse of the anus or rectum),<sup>328</sup> gudārti (proctalgia),<sup>329</sup> vṛṣaṅkṣepa,<sup>330</sup> śepastambha,<sup>331</sup> vaṅkṣaṇānāha,<sup>332</sup> śronibheda (a tearing pain in the pelvic region),<sup>333</sup> viḍbheda (loosening of faecal matter),<sup>334</sup> udāvarta,<sup>335</sup> khañjatva (limping),<sup>336</sup> kubjatva (kyphoscoliosis),<sup>337</sup> vāmanatva (dwarfism),<sup>338</sup> trikagraha (pain in the sacral region),<sup>339</sup> pṛṣṭhagraha (pain in the back),<sup>340</sup> pārśvāvamarda,<sup>341</sup> udarāveṣṭa (a constricting pain in the abdomen),<sup>342</sup> hṛnmoha (cardiac dysfunction),<sup>343</sup> hṛddrava,<sup>344</sup> vakṣa-uddharṣa,<sup>345</sup> vakṣa-uparodha,<sup>346</sup> vakṣastoda (a pricking pain in the thorax),<sup>347</sup> bāhuśoṣa (wasting of the arms),<sup>348</sup> grīvāstambha (stiffness of the neck),<sup>349</sup> manyāstambha (stiffness of the sternomastoid muscles),<sup>350</sup> kaṇṭhoddhvaṃsa (hoarseness),<sup>351</sup> hanubheda (tearing pain in the jaw),<sup>352</sup> oṣṭhabheda (fissures of the lips),<sup>353</sup> akṣibheda,<sup>354</sup> dantabheda,<sup>355</sup> dantaśaithilya (loose teeth), mūkatva (dumbness),<sup>356</sup> vākyasaṅga,<sup>357</sup> kaṣāyasyatā (an astringent taste in the mouth),<sup>358</sup> mukhaśoṣa (dryness of the mouth),<sup>359</sup> arasañjātā (loss of taste),<sup>360</sup> ghrāṇanāśa (loss of smell),<sup>361</sup> karṇaśūla (piercing pain in the ears),<sup>362</sup> aśabdaśravaṇa,<sup>363</sup> uccaiḥśruti,<sup>364</sup> bādhirya (deafness),<sup>365</sup> vartmastambha (stiffness of the eyelids),<sup>366</sup> vartmasaṃkoca,<sup>367</sup> timira (loss of vision),<sup>368</sup> akṣiśūla (piercing pain in the eyes), akṣivyudāsa,<sup>369</sup> bhrūvyudāsa,<sup>370</sup> śaṅkhabheda (tearing pain in the temporal region), lalātabheda (tearing pain in the forehead), śīroruj (headache),<sup>371</sup> keśābhūmiṣphuṭana,<sup>372</sup> ardita (facial paresis),<sup>373</sup> ekāṅgaroga (monoplegia),<sup>374</sup> sarvāṅgaroga (tetraplegia),<sup>375</sup> pakṣavadha (hemiplegia),<sup>376</sup> ākṣepaka (convulsions),<sup>377</sup> daṇḍaka (a type of convulsions),<sup>378</sup> tamaś,<sup>379</sup> bhrama,<sup>380</sup> vepathu (trembling),<sup>381</sup> jṛmbhā (yawning),<sup>382</sup> hikkā (hiccup),<sup>383</sup> viśāda,<sup>384</sup> atipralāpa (very confused speech),<sup>385</sup> raukṣa,<sup>386</sup> pārūṣya,<sup>387</sup> śyāvārūṇāvabhāsatā,<sup>388</sup> asvapna (insomnia),<sup>389</sup> and anavasthitacittatva (mental instability) (20.11).<sup>390</sup>

This list of vāta disorders is of a mixed character; some are vāta diseases and described as such (Ca.Ci.26), some are found in lists of symptoms brought about by vāta.<sup>391</sup> Moreover, the list is incomplete, because many more types of śūla, etc., are known than those enumerated in it.<sup>392</sup> Nevertheless, the eighty vāta disorders have become an established element of āyurvedic doctrine and are found in many later treatises.<sup>393</sup>

The forty nānātmaja disorders of pitta are:<sup>394</sup> oṣa,<sup>395</sup> ploṣa,<sup>396</sup> dāha,<sup>397</sup> davathu,<sup>398</sup> dhūmaka,<sup>399</sup> amlaka,<sup>400</sup> vidāha,<sup>401</sup> antardāha (a burning sensation in chest and belly),<sup>402</sup> aṃśadāha (a burning sensation in the shoulder region), ūśmādhikya (a high body temperature), atisveda (excessive perspiration),<sup>403</sup> āṅgagandha (a foul body odour), āṅgāvadaraṇa,<sup>404</sup> ṣoṇitakleda,<sup>405</sup> māṃsakleda,<sup>406</sup> tvagdāha (a burning sensation in the skin), tvagavadaraṇa (desquamation),<sup>407</sup> carmadalana (excoriation),<sup>408</sup> raktakoṭha (red weals),<sup>409</sup> raktavisphoṭa (red vesicles),<sup>410</sup> raktapitta,<sup>411</sup> raktamaṇḍala (round erythematous patches),<sup>412</sup> haritatva (a greenish colour),<sup>413</sup> hāridratva (a yellow colour), nīlikā (dark moles),<sup>414</sup> kakṣā (herpes zoster),<sup>415</sup> kāmālā (jaundice),<sup>416</sup> tiktāsyatā (a bitter taste in the mouth),<sup>417</sup> lohitaṅgandhāsyatā,<sup>418</sup> pūtimukhatā (foetor oris), tṛṣṇādhikya (excessive thirst),<sup>419</sup> atṛpti (absence of satisfaction after a meal),<sup>420</sup> āsyavipāka (stomatitis),<sup>421</sup> galapāka (pharyngitis), akṣipāka (inflammation of the eyes), gudapāka (inflammation of anus and rectum),<sup>422</sup> medhrapāka (inflammation

of the penis or the urethra), jīvādāna,<sup>423</sup> tamaḥpraveśa (loss of consciousness),<sup>424</sup> and haritahāridranetramūtravarcastva (a greenish or yellow colour of eyes, urine and faeces) (20.14) .

The twenty disorders of kapha are:<sup>425</sup> tṛpti (absence of appetite),<sup>426</sup> tandrā (drowsiness),<sup>427</sup> nidrādhikya (excessive sleep), staimitya,<sup>428</sup> gurugātrātā (a feeling of heaviness in the limbs),<sup>429</sup> ālasya,<sup>430</sup> mukhamādhurya (a sweet taste in the mouth),<sup>431</sup> mukhasrāva (an excess of salivation), śleṣmodgiraṇa (the expectoration of phlegm), malasyādhikya (an excess of secretion and excretion),<sup>432</sup> balāsaka,<sup>433</sup> apakti (a deficient digestion), hṛdayopalepa,<sup>434</sup> kanthopalepa (an increased production of phlegm in the throat),<sup>435</sup> dhamanīpraticaya,<sup>436</sup> galagaṇḍa (goitre),<sup>437</sup> atisthaulya (excessive obesity), śītāgnitā (sluggishness of the digestive fire),<sup>438</sup> udarda (urticaria),<sup>439</sup> śvetāvabhāsātā (a white lustre of the skin),<sup>440</sup> and śvetamūtranetravarcastva (a white colour of urine, eyes and faeces) (20.17).

These pitta and kapha disorders are, like those by vāta, of a mixed character. Their enumeration is not exhaustive.<sup>441</sup> Related lists are found in many treatises.<sup>442</sup>

Chapter twenty-one, called aṣṭauninditīya, is about discreditable (nindita) physical conditions in patients.

Eight types are enumerated: persons who are too tall or too short, too hirsute or too smooth, too dark or too light in colour, too obese or too lean (21.3).

The last two types are discussed in detail; the causes of these conditions are described, their characteristics, physiology, the diseases they lead to, and their treatment (21.4–34).<sup>443</sup>

The second part of the chapter is devoted to sleep,<sup>444</sup> in particular sleeping during the day, which is beneficial in lean, harmful in obese patients. Rules concerning sleeping at night and during the day are formulated (21.35–57).<sup>445</sup> Six types of sleep are distinguished: caused by tamas, kapha, fatigue, exogenous factors, diseases and the night (21.58–59).<sup>446</sup>

Chapter twenty-two, called laṅghanabṛmhaṇīya, gives an account of six basic forms of treatment (śaḍupakrama; 22.44), which consist of reducing (laṅghana), robustant (bṛmhaṇa) and desiccating (rūkṣaṇa) measures, oleation (snehana), sudation (svedana), and checking (stambhana).<sup>447</sup> The theory underpinning these treatments is discussed (22.9–17),<sup>448</sup> the medicinal substances employed in them, their indications, the signs of their proper and improper application, etc. (22.18–43).<sup>449</sup>

Chapter twenty-three, called saṁtarpaṇīya, is concerned with nourishing (saṁtarpaṇa) and depleting (apatarpaṇa) treatments.

The causes, signs and effects of overnutrition (saṁtarpaṇa) and undernutrition (apatarpaṇa) are described. Saṁtarpaṇa is counteracted by apatarpaṇa, apatarpaṇa by saṁtarpaṇa.

Chapter twenty-four, called vidhiṣṇitīya, deals with blood (ṣṇita, rakta, rudhira) and some related topics.

Pure (śuddha)<sup>450</sup> blood is described (24.3–4), the causes of corruption (duṣṭi) of the

blood (24.5–10), and the disorders brought about by corrupted blood (24.11–16).<sup>451</sup> Diseases which, although being curable, do not subside by means of the usual methods, should be diagnosed as caused by blood (24.17)<sup>452</sup> and be treated by specific procedures, consisting of purgation, fasting and bloodletting (śonitasrāvaṇa) (24.18). The signs of corruption of the blood by vāta, kapha, pitta and all three doṣas together are described (24.20–21), the characteristics of pure blood (24.22),<sup>453</sup> rules for bloodletting, its after-treatment, and the signs pointing to success (24.19, 23–24).

The four doṣic varieties of the disorders called mada (intoxication)<sup>454</sup> and mūrchāya (fainting)<sup>455</sup> are discussed. These disorders arise when the channels (srotas) transporting blood, rasa and conscious perception (saṁjñā) are obstructed by the doṣas. Mada is of three types: caused by alcoholic drinks, poisons and blood. Both mada and mūrchāya subside spontaneously, without treatment (24.25–42).<sup>456</sup>

Samñyāsa (prolonged loss of consciousness)<sup>457</sup> has the same origin as mada and mūrchāya, but does not disappear without treatment (24.42–53).

Therapeutic measures which are helpful in counteracting mada and mūrchāya are described at the end of the chapter (24.54–58).<sup>458</sup>

Chapter twenty-five, called yajñaḥpuruṣīya, begins with a discussion among a group of sages<sup>459</sup> about the origin (prāgutpatti) of man (puruṣa), who consists of an aggregate of ātman, the senses (indriya), manas, the objects of the senses and the multitude (rāśi) of his diseases (25.4).

Vāmaka, king of Kāśī, inquires whether the origin of man is the same as that of his diseases. Pārīkṣi Maudgalya brings forward that, as the puruṣa arises from ātman, the diseases also arise from it. Śāraloman disagrees; in his view, manas, also called sattva, when pervaded by rajas and tamas, is the basis of the human body and its diseases. Vāryovida contradicts him, being convinced that rasa is to be regarded as the prime cause. Hiranyākṣa says that the puruṣa originates from the six dhātus, as expounded by the ancient Sāṁkhya.<sup>460</sup> Kauśika proposes that a human being originates from his parents, who also transmit the diseases inherent in the human condition. The puruṣa and his diseases are a product of karman in Bhadrakāpya's eyes, but of svabhāva in Bharadvāja's opinion. Kāṅkāyana posits Prajāpati as the prime cause, bhikṣu Ātreya regards kālā (time) as such.<sup>461</sup> At the end of this discussion, Ātreya Punarvasu declares that all the entities (bhāva) that generate a human being, when suitably combined, cause his disorders when this suitable combination is interfered with (25.5–29).<sup>462</sup>

Vāmaka then asks Ātreya about the underlying cause of these suitable (sāmpad) and unsuitable (vipad) combinations. Ātreya replies that wholesome food makes the puruṣa develop, whereas unwholesome food leads to diseases. Agniveśa is desirous of knowing how these two types of diet may be defined. Ātreya gives these definitions and proceeds with a long excursion about diet (25.30–35).

Articles of food (āhāra) are of one kind regarded as food, of two kinds with respect to their source: of vegetable and animal origin; they are of two kinds as to their effect: wholesome (hita) and unwholesome (ahita), of four kinds with regard to their way of intake: drinkable (pāna), eatable (āśana), chewable (bhakṣya) and suitable to be licked (lehya),<sup>463</sup> of six kinds according to their taste, and of twenty kinds according to their

properties (25.30–35).<sup>464</sup>

The most wholesome<sup>465</sup> and unwholesome among groups of articles of diet are enumerated (25.38–39),<sup>466</sup> followed by a list of one hundred and fifty-two drugs, remedial measures and other items considered to be foremost (*agrya*) among those constituting a particular group (25.40–41).<sup>467</sup>

Some verses about what is wholesome (*pathya*) and unwholesome (*apathya*) conclude this section.

The last part of the chapter is about fermented pharmaceutical preparations called *āsava*.<sup>468</sup> Eighty-four varieties are enumerated, distinguished into eight groups according to their source: cereals (*dhānya*; six items), fruits (twenty-six items),<sup>469</sup> roots (eleven items), heart-woods (*sāra*; twenty-items), flowers (ten items), stems (*kāṇḍa*; four items), leaves (two items), barks (*tvac*; four items), and *śarkarā* (one item).<sup>470</sup> The uses of *āsavas* are explained (25.48–50).

Chapter twenty-six, called *ātreyaḥṭṭakāpyīya*,<sup>471</sup> begins with a discussion among a group of sages<sup>472</sup> in the Caitraratha grove about the number of tastes (*rasa*) to be distinguished.<sup>473</sup>

Bhadrakāpya advances that there is only one taste, not different from that of water.<sup>474</sup> The brāhmaṇa Śākuntēya distinguishes two tastes, *chedanīya*<sup>475</sup> and *upaśamanīya*.<sup>476</sup> Pūrṇākṣa Maudgalya three tastes, *chedanīya*, *upaśamanīya* and an intermediate one (*sādhāraṇa*). Hiraṇyākṣa Kauśika prefers a number of four tastes: palatable (*svādu*) and wholesome (*hita*), palatable and unwholesome, unpalatable and wholesome, unpalatable and unwholesome. Five tastes, derived from the five *mahābhūtas*, are acknowledged by Kumāraśīrasa Bharadvāja. The royal sage Vāryovida recognizes six tastes: *guru* (heavy), *laghu* (light), *śīta* (cold), *uṣṇa* (hot), *snigdha* (oleaginous), *rūkṣa* (dry). Nimi, the king of Videha, has a predilection for seven tastes: *madhura* (sweet), *amla* (acid), *lavaṇa* (salty), *kaṭu* (pungent), *tikta* (bitter), *kaṣāya* (astringent), and *kṣāra* (alkaline), while Baṇīśa Dhāmārgava opts for eight tastes, adding *avyakta* (indistinct) to the series of Nimi. Kāṅkāyana, the physician from Bāhlikā, claims that the tastes are innumerable (26.3–8).

Ātreya Punarvasu decides that there are six tastes: *madhura*, *amla*, *lavaṇa*, *kaṭu*, *tikta* and *kaṣāya*. Their common source (*yoni*) is water. *Chedana* and *upaśamana* are actions of the tastes; the same applies to *sādhāraṇa*. Palatability and unpalatability depend on subjective preferences (*bhakti*); wholesomeness and unwholesomeness are effects of *prabhāva* (specific action). The products (*vikāra*) of the five *mahābhūtas* form the substratum of the tastes. The six tastes of Vāryovida are qualities (*guṇa*) of substances (*dravya*). *Kṣāra* is a substance, endowed with a number of tastes. Indistinctness is found in the source of the tastes (i.e., water) and in (substances) with an after-taste (*anurasa*) (26.9).

The properties and actions of (medicinal) substances in which one of the five *mahābhūtas* predominates are described (26.10–12),<sup>477</sup> followed by a verse on the factors which make a (medicinal) substance active (26.13).<sup>478</sup>

The next section (26.14–44) is devoted to the tastes, a series of properties (*guṇa*), and the relationships between the tastes and the *mahābhūtas*.

Sixty-three combinations of tastes are distinguished;<sup>479</sup> these combinations become innumerable if the after-tastes (anurasa) are also taken into consideration.

Taste and after-taste are defined.<sup>480</sup> Successful treatment depends on the proper administration of drugs with a particular combination of tastes (26.14–28).

The list of ten guṇas<sup>481</sup> consists of paratva (superiority), aparatva (inferiority),<sup>482</sup> yukti,<sup>483</sup> saṅkhyā (number), saṃyoga (conjunction),<sup>484</sup> vibhāga (disjunction),<sup>485</sup> prthaktva (separateness),<sup>486</sup> parimāṇa (measurement), saṃskāra (processing),<sup>487</sup> and abhyāsa (repetitive practice) (26.29–35).

The relationships between the six tastes and the five mahābhūtas are discussed (26.39–41).<sup>488</sup>

The properties and actions of each of the six tastes are elaborately described (26.43),<sup>489</sup> followed by relationships between tastes on the one hand, vīrya, guṇa and karman on the other; exceptions to general rules are given; the three degrees of the six chief properties (guṇa) with regard to the tastes are discussed (26.45–56).<sup>490</sup>

Vipāka (post-digestive taste) is dealt with; kaṭu, tikta and kaṣāya are transformed into kaṭu, amla remains amla, madhura and lavaṇa are madhura after digestion; three degrees of vipāka are distinguished (26.57–63).<sup>491</sup>

Vīrya is taken account of; the number of vīryas is either eight: mṛdu (soft), tīkṣṇa (sharp), guru (heavy), laghu (light), snigdha (oleaginous), rūkṣa (dry), uṣṇa (hot) and śīta (cold), or two only: śīta and uṣṇa (26.64–67).<sup>492</sup>

Prabhāva (specific action) is described as a property which cannot be explained, being beyond reasoning (acintya) (26.68–71).<sup>493</sup>

Vipāka is declared to be stronger than rasa, vīrya overcomes vipāka, and prabhāva is even stronger than vīrya (26.72).<sup>494</sup>

Actions of the tastes are mentioned again (26.74–79).<sup>495</sup>

After this long exposition of Ātreya, Agniveśa asks him to give an account of disagreeing (vairodhika) articles of food.<sup>496</sup> Ātreya, complying with this request, says that substances may be antagonistic to constituents (dhātu) of the body due to their properties, combination, processing, nature (svabhāva), etc. As an example he mentions the combination of fish and milk. Bhadrakāpya objects, asserting that milk may freely be taken together with fish, the fish called cilicima excepted (26.80–83).<sup>497</sup>

A long exposition by Ātreya on numerous antagonistic articles of diet (26.84),<sup>498</sup> types of antagonism (26.86–101),<sup>499</sup> bad effects of antagonistic foods, and the treatment of disorders resulting from disregarding the rules (26.102–106), is found at the end of the chapter.

Chapter twenty-seven, called annapānavidhi,<sup>500</sup> is concerned with articles of diet (anapāna) and describes their medicinal properties and actions.

The foods and drinks are divided into the following groups:<sup>501</sup> śūkadhānya (awned cereals; 27.8–22);<sup>502</sup> śamīdhānya (pulse; 27.23–34);<sup>503</sup> māṃsa (meat; 27.35–87);<sup>504</sup> śāka (vegetables; 27.88cd–124);<sup>505</sup> phala (fruits; 27.125–165);<sup>506</sup> harita (vegetables used in salads; 27.166–177);<sup>507</sup> madya (alcoholic drinks; 27.178–195);<sup>508</sup> jala (water; 27.196–216);<sup>509</sup> gorasa (milk and milk products; 27.217–236);<sup>510</sup> iksu (the sugarcane and its products; 27.237–242);<sup>511</sup> honey<sup>512</sup> and a disorder caused by honey (madhvā-



ma) (27.243–249);<sup>513</sup> kṛtāna (prepared dishes; 27.250–285);<sup>514</sup> oils<sup>515</sup> and other fatty substances (27.286–295); āhārayogin (adjuvants and condiments used in the preparation of foods; 26.296–308).<sup>516</sup>

The groups of animals<sup>517</sup> distinguished are: prasaha (27.35–37ab);<sup>518</sup> bhūmiśaya (27.37cd–38);<sup>519</sup> ānūpamṛga (27.39);<sup>520</sup> vāriśaya (27.40–41a), vāricārīn (27.41b–44);<sup>521</sup> jāṅgalaṃṛga (27.45–46); viṣkira (27.47–49);<sup>522</sup> pratuda (27.50–53ab).<sup>523</sup>

The animals belonging to the prasahas<sup>524</sup> are: cow,<sup>525</sup> ass (khara),<sup>526</sup> mule (aśvātara),<sup>527</sup> camel,<sup>528</sup> horse, leopard (dvīpin),<sup>529</sup> lion,<sup>530</sup> bear (ṛkṣa),<sup>531</sup> monkey (vānara),<sup>532</sup> wolf (vr̥ka),<sup>533</sup> tiger (vyāghra),<sup>534</sup> tarakṣu,<sup>535</sup> babhru,<sup>536</sup> cat, mouse (mūṣika),<sup>537</sup> fox (lopāka),<sup>538</sup> jackal (jambuka),<sup>539</sup> śyena,<sup>540</sup> dog (vāntāda),<sup>541</sup> cāṣa,<sup>542</sup> vāyasa (crow),<sup>543</sup> śaśaghnī,<sup>544</sup> madhuhan,<sup>545</sup> bhāsa,<sup>546</sup> ṛḍhra,<sup>547</sup> ulūka,<sup>548</sup> kuṇḍika,<sup>549</sup> dhūmikā,<sup>550</sup> and kurara;<sup>551</sup>

the bhūmiśayas<sup>552</sup> are: four kinds of kākulīṃṛga,<sup>553</sup> kūrcikā,<sup>554</sup> cillaṭa,<sup>555</sup> bhēka (frog),<sup>556</sup> godhā (varan),<sup>557</sup> śallaka,<sup>558</sup> gaṇḍaka,<sup>559</sup> kadalī,<sup>560</sup> nakula,<sup>561</sup> and śvāvidh;<sup>562</sup>

the ānūpamṛgas<sup>563</sup> are: śrṃara,<sup>564</sup> camara,<sup>565</sup> khaḍga,<sup>566</sup> mahiṣa,<sup>567</sup> gavaya,<sup>568</sup> gaja (elephant),<sup>569</sup> nyariku,<sup>570</sup> varāha,<sup>571</sup> and ruru;<sup>572</sup>

to the vāriśayas belong: kūrma,<sup>573</sup> karkaṭaka (crab),<sup>574</sup> matsya (fishes),<sup>575</sup> śiśumāra,<sup>576</sup> timiṅgila,<sup>577</sup> śukti,<sup>578</sup> śaṅkha,<sup>579</sup> ūdra,<sup>580</sup> kumbhīra,<sup>581</sup> culukī,<sup>582</sup> makara,<sup>583</sup> etc.;

to the vāricārīn group belong: haṃsa,<sup>584</sup> krauñca,<sup>585</sup> balākā,<sup>586</sup> baka,<sup>587</sup> kāraṇḍava,<sup>588</sup> plava,<sup>589</sup> śārārī,<sup>590</sup> puṣkarāhva,<sup>591</sup> keśarin,<sup>592</sup> maṇituṇḍaka,<sup>593</sup> mṛṇālakaṇṭha,<sup>594</sup> madgu,<sup>596</sup> kādamba,<sup>596</sup> kākatuṇḍaka,<sup>597</sup> utkroṣa,<sup>598</sup> puṇḍarikākṣa,<sup>599</sup> megharāva,<sup>600</sup> ambukukkuṭī,<sup>601</sup> āra,<sup>602</sup> nandīmukhī,<sup>603</sup> vāṭī,<sup>604</sup> sumukha,<sup>605</sup> sahaçārīn,<sup>606</sup> rohiṇī,<sup>607</sup> kāmākālī,<sup>608</sup> sārasa,<sup>609</sup> raktaśīrṣaka,<sup>610</sup> cakravāka,<sup>611</sup> etc.;

jāṅgalaṃṛgas<sup>612</sup> are: pṛṣata,<sup>613</sup> śarabha,<sup>614</sup> rāma,<sup>615</sup> śvadaṇṣṭra,<sup>616</sup> mṛgamātrkā,<sup>617</sup> śaśa,<sup>618</sup> uraṇa,<sup>619</sup> kuraṅga,<sup>620</sup> gokarṇa,<sup>621</sup> koṭṭakāraka,<sup>622</sup> cāruṣka,<sup>623</sup> harīṇa,<sup>624</sup> eṇa,<sup>625</sup> śambara,<sup>626</sup> kālapucchaka,<sup>627</sup> ṛṣya,<sup>628</sup> and varapota,<sup>629</sup>

to the lāvādyā subgroup of the viṣkiras<sup>630</sup> belong: lāva,<sup>631</sup> vartūraka,<sup>632</sup> vārtika,<sup>633</sup> kapiñjala,<sup>634</sup> cakora,<sup>635</sup> upacakra,<sup>636</sup> kukkubha,<sup>637</sup> and raktavartmaka;<sup>638</sup>

to the vartakādi subgroup belong: vartaka,<sup>639</sup> vartikā,<sup>640</sup> barhin,<sup>641</sup> tittiri,<sup>642</sup> kukkuṭa,<sup>643</sup> kaṅka,<sup>644</sup> śārapada,<sup>645</sup> indrābha,<sup>646</sup> gonarda,<sup>647</sup> girivartaka,<sup>648</sup> krakara,<sup>649</sup> avakara,<sup>650</sup> and vāraḍa;<sup>651</sup>

the group called pratuda<sup>652</sup> consists of: śatapattrā,<sup>653</sup> bhr̥ṅgarāja,<sup>654</sup> koyaṣṭī,<sup>655</sup> jīva(n)jīvaka,<sup>656</sup> kairāta,<sup>657</sup> kokila,<sup>658</sup> atyūha,<sup>659</sup> gopāputra,<sup>660</sup> priyātmaja,<sup>661</sup> laṭṭā,<sup>662</sup> laṭṭaśaka (laṭṭūśaka),<sup>663</sup> babhru,<sup>664</sup> vatahan,<sup>665</sup> āṇḍimānaka,<sup>666</sup> jaṭī,<sup>667</sup> dundubhi,<sup>668</sup> pakṣāra,<sup>669</sup> lohapr̥ṣṭha,<sup>670</sup> kulīṅgaka,<sup>671</sup> kapota,<sup>672</sup> śuka,<sup>673</sup> śāraṅga,<sup>674</sup> ciraṭī,<sup>675</sup> kaṅku,<sup>676</sup> yaṣṭikā,<sup>677</sup> śārikā,<sup>678</sup> kalavīṅka,<sup>679</sup> caṭaka,<sup>680</sup> āṅgaracūḍaka,<sup>681</sup> pārāvata,<sup>682</sup> and pāṇḍavika (pānavika).<sup>683</sup>

The alcoholic drinks<sup>684</sup> mentioned are: surā (27.179),<sup>685</sup> madirā (27.180), jagala (27.181), ariṣṭa (27.182),<sup>686</sup> śārkara (27.183),<sup>687</sup> pakvarasa (27.184),<sup>688</sup> śītarasika (27.185),<sup>689</sup> gaṇḍa (27.186ab),<sup>690</sup> ākṣikī (27.186cd),<sup>691</sup> surāśava (27.187ab),<sup>692</sup> madhvāsava (27.187cd),<sup>693</sup> maireya (27.187cd),<sup>694</sup> mṛdvīkāsava (27.188),<sup>695</sup> iksurasāsava (27.188),<sup>696</sup> madhvāsava (27.189), yavasurā (27.190ab),<sup>697</sup> madhūlikā

(27.190cd),<sup>698</sup> sauvīra (27.191), tuṣodaka (27.191) and kāñjika (27.192).

The remaining part of the chapter is devoted to special rules concerning articles of diet (27.309–318<sup>699</sup> and 329–350) and to accompanying drinks (anupāna; 27.319–328).<sup>700</sup>

Chapter twenty-eight, called vividhāśitapīṭya, deals with a variety of subjects: the formation of constituents of the body from the four kinds of food ingested (28.3–5);<sup>701</sup> the factors, apart from wholesome or unwholesome food, which influence the appearance, severity and course of diseases (28.6–7);<sup>702</sup> the diseases arising when the doṣas affect one of the seven elements of the body (28.9–19),<sup>703</sup> the sense organs (28.20),<sup>704</sup> ligaments (snāyu), vessels (sirā) and tendons (kaṇṭharā) (28.21), and the malas (28.22);<sup>705</sup> the treatment of these diseases (28.23–30); the movement of the doṣas from the trunk (koṣṭha) to peripheral parts (śākhā) of the body, and vice versa (28.31–33); the differences in behaviour with regard to food between those who are sensible and those who are foolish (28.34–44).

Chapter twenty-nine, called daśapṛāṇāyatanīya,<sup>706</sup> describes the ten seats (āyatana) of the vital breaths (pṛāṇāḥ); these ten seats are the temples (śāṅkha), the three vital organs (marmatraya: heart, bladder, head),<sup>707</sup> the throat (kaṇṭha), blood, semen, ojas, and ano-rectal region (guda) (29.3–4).<sup>708</sup>

The larger part of the chapter gives a long account of the characteristics of accomplished physicians (pṛāṇābhisara)<sup>709</sup> on the one hand and quacks<sup>710</sup> (bhiṣakchadma-praticchanna) on the other (29.5–13). A fully qualified physician should be conversant with all the subjects taught in the Sūtrasthāna.<sup>711</sup>

Chapter thirty, called arthedaśamahāmūlīya,<sup>712</sup> deals with the following subjects: the heart (hṛd, hṛdaya)<sup>713</sup> and the ten great vessels (mahāmūla) attached to it;<sup>714</sup> the ojas transported in these vessels; the vessels called dhamāṁ,<sup>715</sup> srotas and sirā,<sup>716</sup> characterized by their inflatedness (dhmāna),<sup>717</sup> oozing out (nutritive substances) (sraṇa)<sup>718</sup> and carrying function (saraṇa);<sup>719</sup> measures to protect one's heart (30.3–15); the study of āyurveda (30.16–19); the relationship between the āyurveda and the Vedas, in particular the *Atharvaveda* (30.20–21);<sup>720</sup> definitions of āyurveda and āyus (30.22–23);<sup>721</sup> the object of āyurveda and its eternity (30.24–27); the eight branches (aṅga) of āyurveda: <sup>722</sup>kāyacikitsā (internal medicine), śālākya (the branch dealing with diseases of the supraclavicular region),<sup>723</sup> śalyāpahartṛka (the extraction of foreign bodies),<sup>724</sup> viṣagaravairodhikaprasāmana (the treatment of intoxications), bhūtaavidyā (demonology),<sup>725</sup> kaumārabhrtyaka (the treatment of women during pregnancy, delivery and the puerperium, coupled with paediatrics),<sup>726</sup> rasāyana (the science of longevity), and vājīkaraṇa (the science concerned with aphrodisiacs) (30.28);<sup>727</sup> those qualified for the study of āyurveda (30.29); the eight topics of discussion among physicians (30.30); synonyms of āyurveda (30.31); the scope of āyurveda (30.32); a table of contents of the *Carakasamhitā* (30.33–68); the eight topics of discussion again and the exposition of those with insufficient knowledge (30.69–85).

## Chapter 2

### Nidānasthāna

Chapter one is devoted to the nidāna<sup>1</sup> of fever (jvara).

The general features of nidāna are discussed first: the synonyms of nidāna<sup>2</sup> and its three types: asātmayendriyārthasamyoga, prajñāparādha and pariṇāma;<sup>3</sup> the classification of diseases into three groups: āgneya (= caused by pitta), saumya (= caused by kapha) and vāyavya (= caused by vāyu), to which the rājasa and tāmasa diseases are added; the synonyms of vyādhi (disease); the five means to acquire knowledge (upalabdhi) about a disease: nidāna, pūrvarūpa, līṅga, upaśaya and saṃprāpti;<sup>4</sup> the synonyms of pūrvarūpa (prodrome),<sup>5</sup> līṅga (symptom),<sup>6</sup> upaśaya (therapeutic diagnosis)<sup>7</sup> and saṃprāpti (onset);<sup>8</sup> the subdivisions of saṃprāpti: saṃkhyā (number), prādhānya (predominance), vidhi (type), vikalpa (proportional variation), and balakāla (the time of aggravation); definitions of saṃkhyā,<sup>9</sup> prādhānya,<sup>10</sup> vidhi,<sup>11</sup> vikalpa,<sup>12</sup> and balakāla<sup>13</sup> (1.3–12).

Reference is made to the eight diseases which will be discussed in the Nidānasthāna. These diseases arose from lobha (greed), abhidroha (malice) and kopa (anger).<sup>14</sup> Their treatment will also be described, but only summarily, because this subject will be dealt with in extenso in the Cikitsāsthāna (1.15).

Jvara (fever)<sup>15</sup> is described first, because it was the earliest somatic<sup>16</sup> disease to appear among living beings (1.16).<sup>17</sup>

Eight types of fever are to be distinguished:<sup>18</sup> caused by vāta, pitta, kapha, the three combinations of two doṣas, the three doṣas together, and exogenous factors (āgantū) (1.17).<sup>19</sup> The doṣic types are described (1.18–29).<sup>20</sup> An āgantū (exogenous) fever is brought about by abhighāta (injury),<sup>21</sup> abhiṣaṅga (intense emotions and possession by malignant beings), abhicāra (sorcery), and abhiśāpa (curses) (1.30). Various classifications of fevers are mentioned (1.32).<sup>22</sup> The prodromes of fever are described (1.33).<sup>23</sup> General features of fever as an affliction occurring in all living beings are dealt with; its first origin from Maheśvara's anger is referred to (1.35).<sup>24</sup> The treatment of fever is succinctly discussed (1.36–40).

Chapter two is about raktapitta (blood-bile, i.e., haemorrhagic disorders).<sup>25</sup>

The subjects dealt with are: the nidāna and saṃprāpti of raktapitta; the meaning of the term raktapitta (2.3–5);<sup>26</sup> the prodromes (2.6);<sup>27</sup> the complications (upadrava; 2.7);<sup>28</sup> the characteristics of the upwards (ūrdhvaḥbhāga) and downwards (adhobhāga) moving types, and of the type following both pathways (2.8);<sup>29</sup> the first appearance of raktapitta in the wake of the destruction of Dakṣa's sacrifice (2.10);<sup>30</sup> the curability of the upwards moving type, palliability of the downwards moving type, incurability of

the type moving along both pathways; characteristics of these types, and the possibilities of treatment (2.9 and 11–27).<sup>31</sup>

Chapter three is concerned with gulma (visceral swellings).<sup>32</sup>

The subjects dealt with are: the five types of gulma, caused by vāta, pitta, kapha, all three doṣas together, and blood (3.3);<sup>33</sup> knowledge about these types, to be acquired from their aetiology, prodromes, symptoms, types of pain (vedanā)<sup>34</sup> and upaśaya (3.5); the aetiology, symptoms, types of pain and upaśaya of the four doṣic types (3.6–12);<sup>35</sup> gulma caused by blood (raktagulma), a disorder only occurring in women,<sup>36</sup> characterized by symptoms simulating pregnancy (3.13–14);<sup>37</sup> the general prodromes of gulma (3.15); general rules about the treatment of gulma (3.16).

Chapter four is concerned with prameha (urinary disorders).<sup>38</sup>

The subjects dealt with are: generalities about the origin of prameha and its becoming manifest (4.3–4);<sup>39</sup> the aetiology of prameha brought about by kapha (4.5); the constituents of the body (dūṣya) which are corrupted in prameha: medas,<sup>40</sup> māṃsa (muscular tissue), śarīrajakleda (body-fluids), śukra (semen), śoṇita (blood), vasā (muscle fat),<sup>41</sup> majjā (bone marrow), lasikā (serous fluid),<sup>42</sup> rasa (nutrient fluid), and ojas (4.7); the samprāpti of prameha due to kapha (4.8); kapha and medas, after their transformation into urine, give rise to ten kinds of prameha, due to their association with ten properties (guṇa) of kapha; these ten properties are: śveta (white), śīta (cold), mūrta (thickly viscous), picchila (thinly mucous), accha (transparent), snigdha (oily), guru (heavy), madhura (sweet), sāndraprasāda (clear), and manda (slowly flowing);<sup>43</sup> the ten kinds of kaphajaprameha are connected with one or more of these properties (4.9);<sup>44</sup> these ten pramehas are: udakameha,<sup>45</sup> ikṣuvālikārasameha,<sup>46</sup> sāndrameha,<sup>47</sup> sāndraprasādameha,<sup>48</sup> śukrameha,<sup>49</sup> śukrameha,<sup>50</sup> śītameha,<sup>51</sup> sitakāmeha,<sup>52</sup> śanairmeha,<sup>53</sup> and ālāmeha<sup>54</sup> (4.10);<sup>55</sup> the curability of these ten disorders (4.11);<sup>56</sup> descriptions of these ten pramehas (4.13–22);<sup>57</sup> the aetiology of the six kinds of prameha arising from pitta; their names: kṣārameha,<sup>58</sup> kālameha,<sup>59</sup> nīlameha,<sup>60</sup> lohitemeḥa,<sup>61</sup> māñjiṣṭhameha,<sup>62</sup> and hāridrameha;<sup>63</sup> the six properties of pitta, associated with them: kṣāra (alkaline), amla (acid), lavaṇa (salty), kaṭuka (pungent), visra (smelling after raw meat), and uṣṇa (hot)<sup>64</sup> (4.24–26); the palliability of the pittaja pramehas (4.27);<sup>65</sup> descriptions of these six pramehas (4.29–34);<sup>66</sup> the aetiology and samprāpti of prameha due to vāta; the four kinds, called vasāmeḥa,<sup>67</sup> majjāmeḥa,<sup>68</sup> hastimeḥa<sup>69</sup> and madhumeḥa,<sup>70</sup> arise when the vasā, majjā, lasikā and ojas are corrupted by vāta (4.36–37); the incurability of these disorders (4.38);<sup>71</sup> descriptions of these four pramehas (4.41–44);<sup>72</sup> the general prodromes of prameha (4.47);<sup>73</sup> its complications (4.48);<sup>74</sup> a succinct statement on the treatment of prameha (4.49).

Chapter five is devoted to kuṣṭha (skin diseases, including leprosy).<sup>75</sup>

The subjects dealt with are: the seven constituents of the body which, when they are subject to pathological changes (vikṛti), lead to kuṣṭha: the three doṣas and four elements of the body (dūṣya, dhātu): tvac (the layers of the skin), māṃsa (muscular tissue),

śoṇita (blood) and lasikā (serious fluid) (5.3);<sup>76</sup> seven, eighteen or innumerable varieties of kuṣṭha can be distinguished, which differ in several respects, but only seven of these will be described (5.4);<sup>77</sup> these varieties are characterized by the predominance of one, two or three doṣas: vāta predominates in kapālakuṣṭha, pitta in audumbara, kapha in maṇḍalakuṣṭha; vāta and pitta predominate in ṛṣyajihva, pitta and kapha in puṇḍarīka,<sup>78</sup> kapha and vāta in sidhmakuṣṭha, all three doṣas in kākaṇaka (5.5);<sup>79</sup> the aetiology and saṃprāpti of all kinds of kuṣṭha (5.6);<sup>80</sup> their prodromes (5.7);<sup>81</sup> descriptions of the seven (mahā)kuṣṭhas (5.8); their curability, etc., and their complications (5.9–11).<sup>82</sup>

Chapter six is devoted to śoṣa<sup>83</sup> (wasting diseases).<sup>84</sup>

The subjects dealt with are: the aetiology and onset of śoṣa; its four causes: inconsiderate behaviour (sāhasa);<sup>85</sup> suppression of natural urges (saṃdhāraṇa), deficiency of the rasa (nutrient fluid) staying in the heart, deficiency of the semen, and an unbalanced diet (viśamāśana) (6.3–11);<sup>86</sup> śoṣa, the most troublesome of all diseases, is also called rājayaḥśman (kingly consumption),<sup>87</sup> because the venerable Soma, the king of the asterisms (uḍurāja), was afflicted by it in ancient times<sup>88</sup> (6.12);<sup>89</sup> the prodromes (6.13);<sup>90</sup> the eleven symptoms (6.14);<sup>91</sup> curable and incurable forms of the disease (6.15–16).<sup>92</sup>

Chapter seven is devoted to unmāda (insanity).<sup>93</sup>

It deals with the following subjects: the five types of this disease: caused by vāta, pitta, kapha, all three doṣas together, and exogenous factors (āgantū) (7.3);<sup>94</sup> the persons in whom insanity may arise when the excited doṣas go to the heart and obstruct the channels carrying the manas (7.4);<sup>95</sup> a definition of unmāda (7.5);<sup>96</sup> the prodromes (7.6);<sup>97</sup> the symptoms of insanity caused by vāta, pitta, kapha and all three doṣas simultaneously (7.7);<sup>98</sup> the treatment of the three curable types (caused by one doṣa) (7.8–9);<sup>99</sup> the exogenous type, basically caused by errors in judgment (prajñāparādha), but aggravated due to possession by gods, demons, etc.,<sup>100</sup> the prodromes of possession (bhūtonmāda); the ways in which it is initiated (ārambhaviśeṣa);<sup>101</sup> its symptoms; the circumstances making one susceptible to possession (abhighātākāla); the three objectives (prayojana) of beings who may induce possession: himsā (violence), rati (pleasure), abhyarcana (worship);<sup>102</sup> treatment (7.10–16); combinations of endogenous and exogenous insanity (7.18); insanity is always the result of one's own deeds and should not (primarily) be attributed to (possession by) gods, demons, etc. (7.19–23).<sup>103</sup>

Chapter eight, on apasmāra (epilepsy) and a number of other subjects is concerned with: the four types of epilepsy:<sup>104</sup> caused by vāta, pitta, kapha and all three doṣas together (8.3);<sup>105</sup> persons susceptible to apasmāra; its saṃprāpti (8.4);<sup>106</sup> a definition of apasmāra (8.5);<sup>107</sup> the prodromes (8.6);<sup>108</sup> the symptoms of the four doṣic types (8.8);<sup>109</sup> the secondary involvement (anubandha) of an exogenous factor (8.9);<sup>110</sup> treatment (8.10).

The diseases which arose in the wake of the destruction of Dakṣa's sacrifice<sup>111</sup> are mentioned ; gulma, prameha, kuṣṭha, unmāda, apasmāra, jvara, raktapitta and rājayaḥśman (8.11).<sup>112</sup>

A disease may serve as the cause of another disease, in which case it is called *nidā-nārthakara* or *hetvarthakārin*; diseases may present themselves as such and remain in that condition, or mainly as the cause of another disease, or they may do both (8.16–23). One cause may lead to one or to several disorders; one disorder may be brought about by diverse factors, and the same factors may also give rise to various diseases (8.24–26). A particular symptom may occur in one disease or many diseases; numerous symptoms are common to various diseases (8.27–29). The same principles apply to treatment; a particular measure may be useful in one or many disorders; one disorder may require one or several measures (8.30–32). The chapter ends with some verses on general aspects of therapy (8.33–41).

## Chapter 3

### Vimānasthāna

Chapter one, called *rasavimāna*,<sup>1</sup> deals with: the subjects of the *Vimānasthāna* (1.3); the roles of the tastes in substances and of the *doṣas* in disorders (*vikāra*); the connections between tastes and *doṣas*; the analysis of the roles played by tastes and *doṣas* in complex substances and disorders, in which their effects agree with their properties and actions (1.4–9); cases, where this analysis cannot be carried out, because the effects disagree with the properties and actions of the tastes and *doṣas* involved; substances and disorders of this type exhibit a specific action proper to aggregates (*samudāyaprabhāva*), due to their being *vikṛtīviśamasamaveta*; this specific action (*prabhāva*) is of various types: *rasa-*, *dravya-*, *doṣa-* and *vikāraprabhāva*; these concepts are discussed and many examples are given (1.10–18);<sup>2</sup> *sātmya* (individual suitability), a concept linked to *prabhāva* (1.19–20);<sup>3</sup> the eight factors involved in diet (*āhāravidhiviśeṣāyatana*): the nature (*prakṛti*, *svabhāva*) of an article of food or a drug, its processing (*karaṇa*, *abhisamśkāra*),<sup>4</sup> the combination (*saṃyoga*) of substances, their quantity (*rāśi*), place (*deśa*),<sup>5</sup> and time (*kāla*), rules concerning diet (*upayogasaṃsthā*), and the consumer (*upayoktar*) (1.21–22);<sup>6</sup> rules concerning diet (1.23–25).

Chapter two, called *trividhakuṣṭhīya*, is concerned with: the appropriate quantities of articles of diet (2.3–7); the causes of corruption of *āma*;<sup>7</sup> the diseases resulting from this corruption: *visūcikā*,<sup>8</sup> *alasaka*,<sup>9</sup> *daṇḍālasaka* and *āmaviṣa*;<sup>10</sup> their pathogenesis, symptoms and treatment (2.8–14);<sup>11</sup> the *āmāśaya*, lying between navel and nipples, as the place where the food is digested (2.15–18).

Chapter three, called *janapadoddhvaṃsanīya*,<sup>12</sup> records the teachings of *Punarvasu Ātreya* during a stay in *Kāmpilya*, the capital of *Pāñcāla*, concerning epidemic diseases (*janapadoddhvaṃsana*).<sup>13</sup>

These diseases are due to derangements (*vaiguṇya*) of air, water, country and season.<sup>14</sup> Preventive measures are described. Deviations from the *dharma* are the basic cause of epidemics (3.3–20), and, further, war, attacks by *rākṣasas* and afflictions caused by curses (3.21–23).

The characteristics of human beings during the *Kṛta*- and *Tretāyuga* are discussed, and the decrease of the life span (*āyus*) during the four ages (*yuga*) of the world (3.24–27).<sup>15</sup>

*Ātreya* expounds his views on the life span, which is determined (*niyata*) or undetermined (*aniyata*), and dependent on the relative strength of *daiva* (i.e., one's deeds in previous lives) and *puruṣakāra* (one's deeds in the present life) (3.29–36);<sup>16</sup> he also

explains the causes of timely and untimely death (kāla- and akālaṃṛtyu) (3.38).<sup>17</sup>

The subjects of the last part of the chapter are: the prescription of hot water to patients suffering from fever (3.39–41);<sup>18</sup> the treatment of diseases by means of measures which are contrary to their aetiology (nidānaviparīta) (3.42); the three types of depleting treatment (apatarpaṇa): laṅghana (reducing measures), laṅghanapācana (a combination of reducing and digestive measures) and doṣāvasecana (the expulsion of doṣas), to be applied in patients with doṣas of little, moderate and great strength respectively (3.43–45).

Chapter four, called trividharogavijñānīya, discusses the three sources of knowledge about diseases: āptopadeśa (the teachings of authoritative persons), pratyakṣa (perception) and anumāna (inference) (4.3).<sup>19</sup> These concepts are defined. Inference is explained as tarka (reasoning), supported by yukti (4.4).<sup>20</sup> Āptopadeśa has to come first, followed by pratyakṣa and anumāna (4.5). The topics included in āptopadeśa are listed (4.6). Examples of pratyakṣa and anumāna are given (4.7). Inference procures knowledge about the state of the digestive fire (agni), a patient's strength (bala), his sense organs and manas, his vijñāna,<sup>21</sup> rajas,<sup>22</sup> and moha,<sup>23</sup> his tendency to experience anger (krodha), grief (śoka), joy (harṣa), satisfaction (prīti), and fear (bhaya), his equanimity (dhairya), energy (vīrya), stability (avasthāna), faith (śraddhā),<sup>24</sup> intelligence (medhā), alertness of mind (samjñā),<sup>25</sup> memory (smṛti),<sup>26</sup> modesty (hrī), mode of conduct (śīla), dislikes (dveṣa), unreliability (upadhi), reliability (dhṛti), submissiveness (vaśyatā), etc. (4.8).

The chapter ends with verses giving a summary of the contents.

Chapter five, called srotasāṃ vimānam, is about the channels (srotas) in the human body,<sup>27</sup> which transport constituents (dhātu) subject to physiological transformations (pariṇāma). These constituents are: prāṇa (vital breath), udaka (water), anna (digested food), rasa (nutrient fluid), rakta (blood), māṃsa (muscular tissue), medas (fatty tissue), asthi (bone tissue), majjā (bone-marrow), śukra (semen), mūtra (urine), purīṣa (faeces), and sveda (sweat) (5.3–7).

The several groups of vessels are described.

The vessels carrying prāṇa<sup>28</sup> have their origin in the heart (hṛdaya) and the mahāśrotas,<sup>29</sup> those carrying udaka<sup>30</sup> in the root of the palate (tālamūla) and the kloman,<sup>31</sup> those carrying anna in the āmāśaya (receptacle of undigested food) and the left side of the chest (pārśva), those carrying rasa in the heart and the ten vessels called dhamanī,<sup>32</sup> those carrying rakta in the liver (yakṛt) and spleen (plīhan), those carrying māṃsa in the snāyus (cords) and skin (tvac), those carrying medas in the vṛkkaṣ (kidneys) and vapāvahana (omentum maius),<sup>33</sup> those carrying asthi<sup>34</sup> in the medas and buttocks (jaghana), those carrying majjā in the bones and joints, those carrying śukra in the testicles (vṛṣaṇa) and penis (śephas).

The signs indicating that the vessels transporting prāṇa, udaka and anna are corrupted (praduṣṭa) are indicated;<sup>35</sup> the signs pointing to corruption of the other groups of vessels are the same as those of the transported constituents when corrupted and are therefore already described.<sup>36</sup>



The vessels carrying mūtra have their origin in the bladder (basti) and groins (vañkṣaṇa), those carrying puriṣa in the pakvāśaya (receptacle of digested food) and sthūlagada (rectum),<sup>37</sup> those carrying sveda in the medas and hair follicles (lomakūpa); the signs of corruption of the last three groups of vessels are described (5.8).

The names of the visible and invisible spaces (avakāśa) for the dhātus are enumerated. The connections between corruption of the vessels (srotas), dhātus and doṣas are explained (5.9). The causes of corruption of the mentioned groups of vessels are dealt with (5.10–22), followed by some general statements on the vessels and the treatment of their corruption (5.23–28).

Chapter six, called rogānīkaṃ vimānam, is devoted to various ways of classifying diseases; additional subjects are the bodily fire (agni) and the constitutions (prakṛti).

Dual groups (anīka) of diseases mentioned are those which are curable (sādhya) and incurable (asādhya), mild (mṛdu) and severe (dāruṇa),<sup>38</sup> bodily and mental, endogenous (nija) and exogenous (āgantū), arising from the āmāśaya and from the pakvāśaya.<sup>39</sup> The various ways in which diseases may be classified are discussed (6.3–4).

The twopsychic (mānasa) doṣas, rajas and tamas, and the three somatic ones, taken together, produce all the innumerable diseases; their exciting factors are the same: asātmendriyārthasaṃyoga, prajñāparādha and pariṇāma; rajas and tamas are always associated (niyata anubandha), because rajas impelstamas, which cannot move independently; the psychic and somatic doṣas sometimes associate, working together; an example is the association between lust (kāma) and fever (6.5–9).

Somatic doṣas in one and the same location (adhiṣṭhāna) give rise to combinations, called saṃnipāta when all three cooperate, and saṃsarga when two of them are linked to each other (6.10). Doṣas are called primary (anubandhya) when they are independent (svatantra), secondary (anubandha) when otherwise;<sup>40</sup> saṃnipāta and saṃsarga are combinations of primary doṣas (6.11).

The bodily fire (agni) is of four types: tīkṣṇa (intense), manda (sluggish), sama (balanced), and viśama (irregular); it is dependent on the habitual state of the doṣas in the organism; balance of the doṣas gives rise to a balanced fire, predominance of vāta, pitta or kapha to an irregular, intense or sluggish fire respectively (6.12).<sup>41</sup>

The theory that each human being is endowed with a constitution (prakṛti) dominated by one of the three doṣas, because a perfect equilibrium is never habitually present,<sup>42</sup> is rejected with the argument that health (ārogya) is identical with such an equilibrium, also called prakṛti. Persons described as having a vātala, pittala or śleṣmala constitution should therefore be regarded as suffering from a disorder. The characteristics of persons considered to be vātala, pittala and śleṣmala are described, together with appropriate treatments (6.13–18).<sup>43</sup>

Chapter seven, called vyādhitarūpīyaṃ vimānam, begins with an exposition on the avoidance of diagnostic errors, easily made by inexperienced physicians. Those, only acquainted with part of the medical science, are deluded by the appearance (rūpa) of the patient (vyādhita), mistaking a severe disease (guruvyādhī) for a mild one

(laghuvyādhi) and a mild disease for a severe one (7.3–7).

The remaining part of the chapter is devoted to parasites (krimi), the disorders caused by them and the treatment of these disorders<sup>44</sup> (7.8–27).<sup>45</sup>

Twenty kinds of parasites are described; two kinds arising from external impure matter (bāhyamala): yūkā and pipīlikā; six kinds arising from blood: keśāda, lomāda, lomadvīpa, saurasa, audumbara, jantumātar; seven kinds arising from kapha: antrāda, udarāda, hṛdayacara, curu, darbhapuṣpa, saugandhika; five kinds arising from faecal matter: kakeruka, makeruka, leliha, saśūlaka, sausurāda.<sup>46</sup>

Chapter eight, called rogabhiṣagjītiya, deals with the study of āyurveda, the selection of a teacher, the method of studying, the method of teaching, and the initiation of a student (8.3–14).<sup>47</sup>

Discussions (saṃbhāṣā) among physicians constitute the next subject.<sup>48</sup> These discussions are either friendly (saṃdhāya- or anulomasam̐bhāṣā)<sup>49</sup> or hostile (vigṛhya-sam̐bhāṣā);<sup>50</sup> the opponent (para) is superior (pravara), inferior (pratyavara) or equal (sama); the assembly (pariṣad) is learned (jñānavatī) or ignorant (mūḍhā), friendly (suhṛtpariṣad), neutral (udāśīnapariṣad) or prejudiced (pratīviṣṭapariṣad) (8.15–26).<sup>51</sup>

A long series of terms pertaining to learned discussions are given (8.27), defined and illustrated by means of examples (8.28–66).<sup>52</sup>

These terms are: vāda (debate), of a positive (jalpa) or critical (vitaṇḍā) nature;<sup>53</sup> dravya, guṇa, karman, sāmānya, viśeṣa, samavāya, terms already discussed in the Ślokasthāna;<sup>54</sup> pratijñā (thesis);<sup>55</sup> sthāpanā (justification)<sup>56</sup> by means of hetu (reason), dṛṣṭānta (corroborative instance), upanaya (correlation) and nigamana (establishment of the thesis);<sup>57</sup> pratiṣṭhāpanā (justification of a counter-thesis);<sup>58</sup> hetu (reason),<sup>59</sup> i.e., the means of obtaining knowledge (upalabdhi-kāraṇa), consisting of pratyakṣa (perception), anumāna (inference), aitihiya (tradition)<sup>60</sup> and aupamya (analogy);<sup>61</sup> dṛṣṭānta;<sup>62</sup> upanaya<sup>63</sup> and nigamana;<sup>64</sup> uttara (rejoinder);<sup>65</sup> siddhānta (conclusive theoretical statement), divided into sarvatantra- (generally acknowledged), pratitantra- (restrictedly valid), adhikaraṇa- (implied)<sup>66</sup> and abhyupagamasiddhānta (hypothetical statement);<sup>67</sup> śabda (words), divided into dṛṣṭārtha (based on observable facts), adṛṣṭārtha (based on unobservable entities), satya (consistent) and aṛta (inconsistent);<sup>68</sup> pratyakṣa,<sup>69</sup> anumāna,<sup>70</sup> aitihiya,<sup>71</sup> aupamya;<sup>72</sup> saṃśaya (doubt);<sup>73</sup> prayojana (purpose);<sup>74</sup> savyabhicāra (uncertain statement, making allowance for exceptions);<sup>75</sup> jijñāsā (enquiry);<sup>76</sup> vyavasāya (decision);<sup>77</sup> arthaprāpti (implied meaning);<sup>78</sup> saṃbhava (source);<sup>79</sup> anyojya (questionable statement);<sup>80</sup> ananujyaya (unquestionable statement);<sup>81</sup> anyoga (questioning about scriptural evidence);<sup>82</sup> pratyanujyaya (counter-questioning);<sup>83</sup> vākyadoṣa<sup>84</sup> (flaws in speech), of five types: nyūna (deficient),<sup>85</sup> adhika (superfluous),<sup>86</sup> anarthaka (meaningless),<sup>87</sup> apārthaka (incoherent),<sup>88</sup> and viruddha (incongruous);<sup>89</sup> vākyaprasaṃśa (commendable speech);<sup>90</sup> chala (deceptive speech);<sup>91</sup> ahetu (fallacious reasoning),<sup>92</sup> which is of three types: prakaraṇasama (relating to the topic), saṃśayasama (relating to doubt) and varṇyasama (relating to the object);<sup>93</sup> atītakāla (a statement deviating from the proper temporal order);<sup>94</sup> upālambha (a statement pointing out defects in causal reasoning);<sup>95</sup> parihāra (refutation of upālambha);<sup>96</sup> pratijñāhāni (abandonment of

the original thesis);<sup>97</sup> abhyanuññā (acceptance of an allegation, but turning it to the opponent);<sup>98</sup> hetvantara (fallacy of the reason adduced);<sup>99</sup> arthāntara (an irrelevant statement);<sup>100</sup> nigrāhasthāna (reasons of defeat).<sup>101</sup>

Some general rules regarding debates among physicians conclude this section (8.67).

Ten concepts which a physician should be acquainted with before proceeding to action are discussed: kāraṇa (the agent), karaṇa (the instrument necessary for an agent to bring about an effort), kāryayoni (the material cause by the modification of which an effect is produced), kārya (that which is kept in view by the agent before making an effort), kāryaphala (the aim intended by the agent), anubandha (the good or bad effect which leaves its impact on the agent after making an effort), deśa (the location of an action), kāla (the process of temporal changes), pravṛtti (the effort leading to the production of an effect),<sup>102</sup> upāya (the special aptitudes of agent, instrument and material cause which make the effect possible) (8.68–79).<sup>103</sup>

These concepts introduce a section on types of examination (parīkṣā) and discussions regarding this point (8.80–82). Two types of examination are mentioned: pratyakṣa and anumāna, or three, if upadeśa (= āptopadeśa) is included (8.83).<sup>104</sup>

The ten concepts, consisting of kāraṇa, etc. are explained in their application to medicine (8.84–151). The kāraṇa is the physician (8.86), the karaṇa the remedy (8.87), the kāryayoni the imbalance of the dhātus (dhātuvaśāmya), which leads to the emergence of a disorder (vikārāgama) (8.88), the kārya the equilibrium (sāmya) of the dhātus (9.89), kāryaphala welfare (sukha) (8.90), anubandha the preservation of one's life span (āyus) (8.91).

Deśa has two meanings: the type of country in which a patient lives and the kind of soil on which a medicinal plant grows,<sup>105</sup> and the patient (ātura) himself (8.92–93).

A patient should be examined with reference to his prakṛti (constitution), vikṛti (pathology), sāra (predominance of the dhātus),<sup>106</sup> saṃphanana (compactness of the parts of the body), pramāṇa (measurements), sātmya (suitability), sattva (mental condition), āhāraśakti (power of intake and digestion of food), vyāyāmaśakti (power of physical exercise) and vayas (age) (8.94).

The factors determining the type of prakṛti are described. The types distinguished are śleśmala (with a predominance of kapha), pittala (with a predominance of pitta), vātala (with a predominance of vāta), saṃsrṣṭa (with a predominance of two doṣas),<sup>107</sup> and samadhātu (with balance of the doṣas) (8.95).

The properties of the doṣas<sup>108</sup> and the constitutional characteristics of those with predominance of one of them are described. The characteristics of those in whose constitution two doṣas predominate and of those who are samadhātu can easily be deduced (8.96–100).<sup>109</sup>

The pathology of a patient is severe, moderate or mild, dependent on the strength of cause, doṣa, dūṣya (corrupted constituent of the body), place, time, symptoms, and the interplay of these factors (8.101).

Eight types of sāra are described, in which respectively the elements tvac (skin),<sup>110</sup> rakta (blood),<sup>111</sup> māṃsa (muscular tissue),<sup>112</sup> medas (fatty tissue),<sup>113</sup> asthi (osseous tissue),<sup>114</sup> majjā (bone marrow),<sup>115</sup> śukra (semen)<sup>116</sup> and sattva (mental faculties)

predominate. Some persons are endowed with all these sāras in combination, others are asāra. The importance of the determination of a patient's sāra is emphasized (8.102–115).<sup>117</sup> Saṃphanana, also called saṃhati and saṃyojana, is briefly discussed (8.116).<sup>118</sup>

The norm for the measurements of numerous parts of the body is given;<sup>119</sup> the unit of these measurements is the breadth of one's own finger, called an aṅgula (8.117).<sup>120</sup> The parts of the body mentioned are: the two pādas (feet), jaṅghās (lower legs), jānus (knees), ūrus (thighs), and vṛṣaṇas (testicles), the śepha(s) (penis), bhaga (vulva), kaṭī (waist), bastiśiras, and udara (abdomen), the two pārśvas (sides of the chest), the stanāntara (part between the nipples), stanaparyanta (circumference of the nipples), uras (chest), and hṛdaya (apex of the heart),<sup>121</sup> the two skandhas (shoulders), aṃśas (shoulder blades), prabhāhus (upper arms),<sup>122</sup> prapāṇis (lower arms),<sup>123</sup> hastas (hands), and kakṣas (armpits), the trika (sacral region), prṣṭha (back), śirodharā (neck), ānana (face), āśya (mouth), cibuka (chin), oṣṭhas (lips), karnaśas (ears), akṣimadhyā (part between the eyes), nāsikā (nose), lalāṭa (forehead), and śiras (head).

Sātmya is succinctly dealt with (8.118).<sup>124</sup> Sattva is, according to its strength, of three types: superior (pravara), medium (madhya) and inferior (avara);<sup>125</sup> persons of the first category are the same as those called sattvasāra (8.119). Āhāraśakti and vyāyamaśakti are defined (8.120–121).

Three stages of the life cycle are described: bāla, up to sixteen years, dominated by kapha, and extending to the age of thirty years; madhya, dominated by pitta, up to sixty years; jīrṃa, dominated by vāta, up to one hundred years, the maximum life span in the present age of the world (8.122).<sup>126</sup>

Prakṛti, etc., vikṛti excepted, may be present in three degrees; the strength of the doṣas in a pathological condition (vikṛti) and of a medicament is of three degrees too (8.123). The characteristics determining the life span will be described in the Indriyasthāna and the jātisūtrīya chapter<sup>127</sup> (8.124).

The divisions of time are dealt with, followed by physiological changes during the three main seasons (hemanta, grīṣma, varṣāḥ) and their consequences for therapy (8.125–127).<sup>128</sup> The condition of the patient (āturāvasthā) is, with respect to the period of time, kāla or akāla (8.128).

Pravṛtti and upāya, the last two of the ten concepts, are briefly discussed (8.129–130).

The types of examination dealt with in the foregoing find their application (prayojana) in a decision on the course of therapeutic action (pratipatti) (8.132). The way to arrive at a decision when symptoms in favour of a particular line of treatment co-exist with symptoms prohibiting this is discussed (8.134). Indications and contra-indications for treatment with emetics, etc., will be dealt with in the Siddhisthāna (8.133).

Medicinal substances and preparations useful as emetics and purgatives are listed (8.135–136).<sup>129</sup>

Drugs used in āsthāpana (non-oleaginous enema) are, due to their large number, divided into six groups (skandha), according to the predominance of one particular taste. The items comprising these groups are enumerated;<sup>130</sup> directions for the ways of preparation are added (8.137–146).

A wise physician should omit a drug, if he considers it to be unsuitable, or add one, even if not listed, if it is useful (8.149).

Drugs to be employed in anuvāsana (oleaginous enema) are discussed, in particular the fatty substances in this type of enema (8.150). Drugs useful in śīrovirecana (evacuation of the head) are enumerated (8.151).

## Chapter 4

### Śārīrasthāna

Chapter one,<sup>1</sup> called *katidhāpuruṣīya*, is of a philosophical nature. It is mainly concerned with Sāṃkhya and Vaiśeṣika doctrines and their application to medical thought.

The chapter begins with Agniveśa's questions on the *puruṣa* (1.3–15), which are answered by Punarvasu.

The *puruṣa* (individual) is composed of the *ñve mahābhūtas* and *cetanā* (consciousness) as the sixth principle (*dhātu*);<sup>2</sup> *cetanā* alone is also called *puruṣa* (1.16). In addition, the *puruṣa* can be described as consisting of twenty-four principles (*dhātu*):<sup>3</sup> *manas* (mind), the ten *indriyas* (the functions of the five senses and the five organs of action),<sup>4</sup> the five objects of the senses (*artha*), and the *prakṛti* (matter), which has eight elements (*dhātu*) (1.17).<sup>5</sup> *Manas* and *buddhi* are characterized (1.18–23),<sup>6</sup> followed by the ten *indriyas* (1.24–26), the five *mahābhūtas* (1.27–31ab), the objects of the senses (1.31cd), *buddhi* (1.32–34),<sup>7</sup> and *para* (= *avyakta*);<sup>8</sup> 1.35).

*Sattva*, *rajas* and *tamas* are mentioned with regard to the keeping together of the aggregate (*rāśi*)<sup>9</sup> of twenty-four principles, which constitutes the *puruṣa*, and with regard to the dissolution of this aggregate, i.e., final emancipation (1.36).<sup>10</sup>

The existence of the *puruṣa* (here identical with the *ātman*), distinct from the body and eternal, and different from the *puruṣa* as an aggregate, is defended against opponents (1.37–62).<sup>11</sup>

The eight evolutes of *bhūtaprakṛti* are the five *mahābhūtas*,<sup>12</sup> *buddhi*,<sup>13</sup> *avyakta* and *ahaṃkāra*;<sup>14</sup> the products (*vikāra*) are sixteen in number:<sup>15</sup> five organs of sense, five organs of action, mind (*manas*) and the objects of the five senses (1.63–64). This whole, the *avyakta* excepted, is known as the field (*kṣetra*),<sup>16</sup> while the *avyakta* is the knower of the field (*kṣetrājña*) (1.65). The *avyakta* gives rise to *buddhi*, *ahaṃkāra* evolves from *buddhi*, the five *mahābhūtas* arise from *ahaṃkāra* (1.66–67ab). The cycles of evolution and dissolution are described (1.67cd–69).<sup>17</sup>

The characteristics of the *ātman* (*ātmaliṅga*) are enumerated (1.70–72),<sup>18</sup> which disappear at death (1.73–74). A discourse on the *ātman* and the *manas* follows (1.75–85).<sup>19</sup> A characteristic attributed to the *manas* is *kriyāvattva* (activity), while the *ātman* is the *kartar* (agent); the *manas* is unconscious, while the *ātman* is endowed with consciousness (1.75–76).<sup>20</sup>

Verses on the duty of a physician to avert future suffering introduce (1.86–94ab)<sup>21</sup> a more general discussion of *upadhā* (attachment to the objects of the senses);<sup>22</sup> *upadhā* is the main cause of suffering, freedom from it eliminates all miseries (1.94cd–97).<sup>23</sup>

Causes of misery are dealt with in the next section: *dhūvibhramṣā*<sup>24</sup> or *buddhivibhramṣā* (impairment of functions of the intellect), *dhṛtīvibhramṣā* (impairment of the

faculty of keeping one's ground), *smṛtīvibhramśa* (impairment of memory), *saṃprāpti* (the coming to fruition) of *kāla* (the factor of time), *saṃprāpti* of *karman* (past actions), and *asātmayārthāgama* (unsuitable contact with the objects of the senses) (1.98).<sup>25</sup>

These subjects are more elaborately discussed. *Dhī-*, *dhṛti-* and *smṛtīvibhramśa* are subsumed under the term *prajñāparādha* (errors in judgment) (1.99–109).<sup>26</sup> Natural (*svābhāvika*) diseases, like old age and death, belong, together with all the other disorders influenced by the time factor, to those caused by *kālasaṃprāpti* (1.110–155). *Karman* is the same as *daiva* (fate); diseases caused by *karman* are not amenable to treatment and subside only after the effects of *karman* are exhausted (1.116–117).<sup>27</sup> Unsuitable contact with the objects of the senses (*asātmayārthasaṃyoga*) is illustrated by means of examples (1.118–128).

The next subjects are *sukha* (happiness) and *duḥkha* (suffering), arising from the contact with the sense of touch (*sparsa*)<sup>28</sup> and mind (*manas*), which leads to attachments (*tṛṣṇā*) in the form of desire (*icchā*) and aversion (*dveṣa*) (1.129–136). *Mokṣa* (final emancipation), in which all sensations (*vedanā*) have ceased, is reached by means of *yoga* (1.137–139).<sup>29</sup>

The eight wonderful powers (*aiśvara bala*) of yogins are enumerated: *āveśa* (entering another's body), *cetośa jñānam* (knowing another's mind), *arthānāṃ chandataḥ kriyā* (doing things at will), *drṣṭi* (extraordinary power of vision), *śrotra* (extraordinary power of hearing), *smṛti* (extraordinary power of memory), *kānti* (extraordinary beauty) and *iṣṭato 'darśanam* (invisibility at pleasure) (1.140–141).<sup>30</sup>

The way leading to *mokṣa* (final emancipation) and this state itself are described (1.142–155).<sup>31</sup>

Chapter two is called *atulyagotrīya*.<sup>32</sup> This title refers to the rule that marriages<sup>33</sup> between members of the same *gotra* should not be contracted (2.3).<sup>34</sup>

This chapter contains Ātreya's answers to thirty-six questions<sup>35</sup> of Agniveśa which deal with conception, embryology, and a number of more diverse subjects.<sup>36</sup>

The male semen (*śukra*) is said to be composed of four *mahābhūtas* and to originate from (food containing) the six tastes (2.4).<sup>37</sup> The causes of normal conception, foetal development and delivery of the child are mentioned, followed by the causes of abnormalities in these processes (2.6–7).<sup>38</sup>

A type of pseudo-pregnancy is described, caused by *vāyu* which obstructs (the flow of) the menstrual blood.<sup>39</sup> When this blood is at last discharged, some people say that because only blood is seen and no trace of a foetus, the latter has been destroyed by an evil spirit (*bhūta*);<sup>40</sup> this view is rejected for the reason that these evil spirits, who roam about during the night, are fond of *ojas* and would have caused fatal damage to the mother's body too, if they actually had succeeded in gaining access to her body (2.8–10).<sup>41</sup>

Predominance of *rakta*<sup>42</sup> at conception produces a female, predominance of *śukra* (semen) a male child.<sup>43</sup> The genesis of twins<sup>44</sup> and multiple births<sup>45</sup> is explained, followed by the causes of delayed parturition and the differences in twins (2.11–16).

A number of abnormalities of the offspring are accounted for. A child called *dviretas*<sup>46</sup> is born when the male and female contributions to the *bīja*<sup>47</sup> are equal<sup>48</sup> or

when there is damage to the bīja.<sup>49</sup> A pavanendriya is conceived when vāyu harms the seat of śukra of the embryo,<sup>50</sup> a saṃskāravāha when anila (= vāta) injures the opening (dvāra) of the receptacle of sperm.<sup>51</sup> The two (male and female) types of klība<sup>52</sup> are born from parents whose procreatory fluids (bīja) are sluggish or deficient, who are weak or do not experience sexual pleasure (harṣa). A vakrin<sup>53</sup> is the result of pratigha<sup>54</sup> of the female during intercourse and weakness of the male. An Irṣyārati<sup>55</sup> is born from spiteful partners who do not enjoy the act fully.<sup>56</sup> A vātikaṣaṇḍaka's testicles are seriously damaged by an abnormal condition (doṣa) of vāyu and agni (2.17–21).<sup>57</sup>

The signs indicating conception are described, followed by signs pointing to the sex of the child;<sup>58</sup> it will resemble the kind of being or person with whom the mother is preoccupied during conception (2.22–25).<sup>59</sup>

A foetus is composed of four mahābhūtas,<sup>60</sup> each of which derives from father, mother, the mother's food and the ātman;<sup>61</sup> the appearance and other characteristics<sup>62</sup> of the child are determined by its own karman and that of its parents (2.26–27).<sup>63</sup> The causes of abnormalities in the newborn child are discussed (2.29–30).

Transmigration is the next subject discussed. The ātman is described, the entities accompanying it during the cycle of rebirths,<sup>64</sup> the factors determining one's physical appearance and mental characteristics, etc. (2.31–38).<sup>65</sup>

The causes of happiness and sorrow (harṣa and śoka) are dealt with again. All diseases are brought about by errors in judgment (prajñāparāḥa), unsuitable (contact with the) objects (of the senses) and transformations caused by time. Fate (daiva) and personal efforts (pauruṣa) are decisive factors in health and disease (2.39–47).<sup>66</sup>

Chapter three, called khuḍḍikā garbhāvakraṇṭiḥ,<sup>67</sup> is concerned with the descent (avakraṇṭi) of the transmigrating self (jīva)<sup>68</sup> into the embryo. The chapter is composed in the form of a dialogue between Ātreya and Bharadvāja.<sup>69</sup>

Ātreya proposes that the child in the womb is an aggregate (samudāya) of six factors (bhāva) derived from the mother, father, ātman, suitability (sātmya), the nutrient fluid (of the mother) (rasa), and sattva (= manas).<sup>70</sup> This proposition is rejected by Bharadvāja, who gives his arguments, which are refuted by Ātreya (3.3–5).

The constituents of the body deriving from the mother are enumerated: tvac (the layers of the skin),<sup>71</sup> lohita (blood), māmśa (muscular tissue), medas (fatty tissue), nabhi (the navel), hṛdaya (heart), kloman, yakṛt (liver), phīhan (spleen), vṛkkas (kidneys), basti (bladder), pūriṣāḥāna (receptacle of faeces), āmāśaya, pakvāśaya, uttaraguda (rectum), adharaguda (anal region), kṣudrāntra (small intestine), sthūlāntra (large intestine),<sup>72</sup> vapā, and vapāvahana (omentum).<sup>73</sup> Derived from the father are: keśa (the hairs of the head), śmaśru (the beard hair), nakha (nails), loman (body hair), danta (the teeth), asthi (the bones), sirā (veins), snāyu (the cords, i.e., ligaments, etc.), and dhamanī (arteries).<sup>74</sup>

Derived from the ātman<sup>75</sup> are: birth in various successive wombs, āyus (the life span), ātmajñāna (knowledge of the self), manas, indriya (the senses), prāṇa, apāna, preraṇa (setting in motion), dhāraṇa (sustenance), ākr̥ti (personal appearance),<sup>76</sup> svara (voice), varṇa (complexion), sukha (happiness), duḥkha (misery), icchā (desire),



dveṣa (aversion), cetanā (consciousness), dhṛti (power of restraint), smṛti (memory), ahaṃkāra (the ego), and prayatna (effort).<sup>77</sup>

Derived from sātmya are: ārogya (health), anālasya (diligence), alolupatva (absence of greed), indriyaprasāda (clarity of the senses), sampad (excellence) of svara (voice), varṇa (complexion) and bīja (reproductive factors), and praharṣabhūyastva (abundance of orgasmic pleasure).<sup>78</sup>

Derived from rasa are: abhinirvṛtti (development) and abhivṛddhi (growth) of the body, prāṇānubandha (maintenance of the link with the vital breaths), trpti (satisfaction), puṣṭi (a well-nourished bodily appearance), and utsāha (perseverance).<sup>79</sup>

Derived from sattva are: bhakti (inclination), śīla (conduct), śauca (purity), dveṣa (enmity), smṛti (memory), moha (attachment), tyāga (detachment), mātṣarya (envy), śaurya (valour), bhaya (fear), krodha (anger), tandrā (drowsiness), utsāha (perseverance), taikṣṇya (harshness), mārdava (mildness), gāmbhīrya (seriousness), anavasthitatva (instability), and other features to be described in the context of the sattva typology (3.6–13).<sup>80</sup>

After listening to this exposition by Ātreya, Bharadvāja asks a second set of questions, to which Ātreya replies again. The latter explains why living beings, man included, generate offspring of the same species as the parents,<sup>81</sup> and why intellectual deficiency is not always of a hereditary character. He also clarifies the connections between the ātman and the senses (3.14–25).<sup>82</sup>

Chapter four, called mahatī garbhāvakrāntiḥ, deals with embryology.<sup>83</sup> The subjects discussed in the chapter are enumerated (4.3). The five factors (bhāva) at the origin of the aggregate called garbha (embryo, foetus) are referred to (4.4).

The combination of śukra, śoṇita and jīva is called garbha (4.5). The garbha is a product of the five mahābhūtas and the seat of consciousness (cetanā), which is regarded as the sixth dhātu (4.6).<sup>84</sup>

Conception is described (4.7) and the processes in its wake. First of all, the cetanādhātu (principle on which potential consciousness is based),<sup>85</sup> accompanied by the sattva as its instrument, becomes active in appropriating the qualities (guṇa),<sup>86</sup> beginning with (those of) ākāśa, gradually followed by (those of) the other four mahābhūtas; this process requires very little time (4.8).<sup>87</sup>

In the first month of its development the embryo is a jelly-like (kheṭa) mixture of all its constituents;<sup>88</sup> in the second month it becomes a firm mass (ghana), which is like a bolus (piṇḍa),<sup>89</sup> like a muscle (peśī), or like a tumour (arbuda),<sup>90</sup> thus indicating that its sex is male, female, or neither male nor female (napuṃsaka).<sup>91</sup> All the sense organs, the main parts of the body (aṅga) and the smaller parts, develop in the third month.<sup>92</sup>

Derived from ākāśa are śabda (sound), śrotra (the sense of hearing), lāghava (lightness),<sup>93</sup> sauksmya (subtlety) and viveka (separation); derived from vāyu are sparśa (touch), sparśana (the tactile sense), raukṣya (dryness), prerāṇa (setting in motion),<sup>94</sup> dhātuvyūhana (disposition and displacement of the dhātus), and ceṣṭāḥ śārīryaḥ (bodily movements); derived from agni (fire) are rūpa (vision), darśana (the sense of seeing), prakāśa (clarity), pakti (digestion and related processes), and auṣṇya (heat); derived from ap (water) are rasa (taste), rasana (the gustatory sense),

śaitya (coldness), mārḍava (softness), sneha (unctuousness), and kleda (moisture); derived from pṛthvī (earth) are gandha (smell), ghrāṇa (the olfactory sense), gaurava (heaviness), sthairyā (solidity), and mūrti (corporeality) (4.9–12).<sup>95</sup>

The parallelism of macrocosm and microcosm is stressed (4.13).

The organs of sense, and the major and minor parts of the body, appear thus simultaneously, apart from those which develop later in life (4.14). Sensations (vedanā) arise in the same period. The foetus begins to quicken (spandate) and to long for whatever was experienced in its previous life. This state is called dvaihrdaya, because the foetus, being connected with the mother's heart through nutritive vessels, goes through the same desires as its mother.<sup>96</sup> For that reason the mother's desires should be duly taken into consideration and satisfied, unless harmful to the child (4.15, 17, 19).<sup>97</sup>

The signs of pregnancy are described (4.16),<sup>98</sup> followed by rules concerning the mother's diet and behaviour (4.18).<sup>99</sup>

During the fourth month the mass of the foetus increases, which makes the gravida feel heavy.<sup>100</sup> The muscular tissue and blood develop in the fifth month in particular, which leads to leanness in the mother. The sixth month is characterized by the development of strength and complexion, which results in loss of strength and complexion in the mother. The foetus grows in every respect during the eighth month, which makes the expectant mother exhausted; this month is dangerous because ojas is exchanged between mother and child, leading to fluctuations of mood in both (4.19–24).<sup>101</sup>

The ninth and tenth months are the period of parturition.<sup>102</sup> Factors influencing normal development of the foetus and normal delivery are dealt with (4.25–29).<sup>103</sup>

Disorders of the foetus on account of damage to the female procreatory fluid (śoṇita) and the uterus are discussed: affections of parts of the body derived from the mother, sterility (vandhyātva), premature death,<sup>104</sup> and the condition of being a vārtā.<sup>105</sup> The same disorders arise from damage to particular parts of the male seed, with this difference that not a vārtā, but a ṛṇaputrika may be born<sup>106</sup> (4.30–31).

The last section of the chapter is devoted to a character typology. Human beings are of three main character types (sattva): śuddha, rājasa and tāmasa.<sup>107</sup> Though the variations in character are innumerable, a number of types are described in more detail.

The seven śuddha types are: brāhma,<sup>108</sup> ārṣa, aindra, yāmya, vāruṇa, kaubera, and gāndharva; the six tāmasa types are: āsura, rākṣasa,<sup>109</sup> paśāca,<sup>110</sup> sārpa, praita, and śākuna; the three rājasa types are: pāśava,<sup>111</sup> mātsya and vānaspatya (4.36–40).<sup>112</sup>

Chapter five, called puruṣavicaya, is concerned with the parallelism between macrocosm and microcosm and with the way leading to final emancipation (mokṣa).

The parallels between the cosmos (loka) and the person (puruṣa) are discussed first. The cosmos is an aggregate of six dhātus: the five mahābhūtas and the unmanifest (avyakta) brahman. The puruṣa is similar to the cosmos in this respect (5.4).

The parallelism is elucidated in more detail. The mahābhūtas (earth, etc.) and brahman are represented in the puruṣa by mūrti (corporeality), kleda (moisture), abhiṣaṁtāpa (heat), prāṇa, suśīratva (hollowness), and the antarātman. The vibhūti<sup>113</sup> of brahman is represented by Prajāpati,<sup>114</sup> the vibhūti of the antarātman by sattva (= manas). Indra corresponds to the ahaṁkāra,<sup>115</sup> Āditya<sup>116</sup> to ādāna (absorption),<sup>117</sup>

Rudra to roṣa (anger), Soma to prasāda (serenity), the Vasus<sup>118</sup> to sukha (happiness), the Aśvins to kānti (beauty), Marut to utsāha (perseverance), the Viśvedevāḥ<sup>119</sup> to the sense organs and their objects;<sup>120</sup> darkness (tamas) corresponds to ignorance (moha), light to (spiritual) knowledge (jñāna). The four ages (yuga) of the world correspond to childhood, adulthood, old age and disease (5.5).

The purpose of this exposition on the parallels between loka<sup>121</sup> and puruṣa is that it leads to true knowledge (satyā buddhiḥ), consisting of the realization that cosmos and self are identical<sup>122</sup> (5.7). Attachment (pravṛtti) is the main cause of all kinds of affliction (upaplava), while detachment (nivṛtti) leads to their cessation (uparama).<sup>123</sup> This true knowledge is based on the insight that loka and puruṣa are identical (5.8).

The sources of attachment are dealt with: moha (ignorance), icchā (desire), dveṣa (aversion) and karman (action). Attachment gives rise to ahaṃkāra (experiencing the own ego as a glorious entity), saṅga (actions not leading to emancipation), saṃśaya (doubt), abhisamplava (considering the self to be identical with the body), abhyavapāta (self-based attachment), vipratyaya (considering something wholesome as unwholesome, etc., and the other way round), aviśeṣa (lack of discrimination), and anupāya (employment of unsuitable means) (5.10).<sup>124</sup> Detachment is apavarga (emancipation), mokṣa (freedom from bondage), etc. (5.11).

The means to be employed for the ascent (udayana) leading to mokṣa (5.12) and the achievement of the aim (5.13–24) are described.

Chapter six, called śārīravicya, deals with a number of subjects.

Its first part is concerned with imbalance of the dhātus (= doṣas) and restoration of their equilibrium. A dhātu increases by the use of substances with properties similar to those of the dhātu, while it is subject to decrease through the use of substances with contrary properties. Treatment of imbalances of the dhātus is based on this principle (6.3–11). The twenty properties (guṇa) of the dhātus are enumerated in this section (6.10).<sup>125</sup>

Factors leading to bodily growth, increase of strength and transformation of the food are dealt with (6.12–16). The constituents of the body are divided into two groups: mala and prasāda. The malas (waste products) are the various secretions (upadeha) which come out of the orifices of the body,<sup>126</sup> bodily elements (dhātu) which have been subject to excessive pāka (paripakva),<sup>127</sup> excited (prakupita) doṣas,<sup>128</sup> and other substances harmful to the body. The entities called prasāda are the (normal) seven bodily elements<sup>129</sup> (6.17).

The three doṣas, when corrupted (duṣṭa), are the agents causing corruption of all the constituents mentioned, because it is in their nature (svabhāva) to do so (6.18).

The second part is devoted to questions pertaining to embryology. On the important problem as to which part of the embryo arises first, conflicting views have been expressed by sages who composed (medical) treatises (sūtrakṛt). Kumāraśīrasa Bharadvāja is of the opinion that the head arises first; it is the heart according to Kāṅkāyana, the physician from Bāhlika, the navel according to Bhadrakāpya, the pakvāśaya and guda (rectum and anus)<sup>130</sup> according to Bhadrāśaunaka, hands and feet according to Baḍiśa, the organs of sense according to Janaka from Videha; the question cannot be answered,

because observation is impossible, according to Mārīci Kaśyapa; all the organs appear at the same time, according to Dhanvantari. Atreya agrees with Dhanvantari, but not without drawing attention to the importance of the heart as the root (mūla) of all the parts of the body and the seat (adhiṣṭāna) of some other constituents (bhāva)<sup>131</sup> (6.21).<sup>132</sup>

The foetus lies in the womb (kuṣṭhi) with its face towards the mother's back, its head upwards and limbs folded.<sup>133</sup>

In the early stage of its development, the foetus is entirely dependent for its maintenance on upasneha (transudation)<sup>134</sup> and upasveda (conduction of heat)<sup>135</sup> from the mother's body. Later, upasneha is effected partly through the pores of the hairs (romakūpa) and partly through the vessels in the umbilical cord (nābhināḍīyayana). This cord is attached to the navel at one end, to the placenta (aparā)<sup>136</sup> at the other end, and the placenta is connected with the mother's heart, which fills it with nourishment (6.23).<sup>137</sup>

Normally, the child turns its head downwards when the time of delivery is approaching (6.24).

Disorders of the newly-born child which are not brought about by the doṣas find their origin in the wrath of the gods and of other beings (6.27).

The last section of the chapter is concerned with timely and untimely death (kālakālamṛtyu).<sup>138</sup> The normal life span in the present age is said to be one hundred years (6.28–29).

Chapter seven, called śarīrasamkhyā,<sup>139</sup> deals with the parts of the body and their respective numbers.

Six layers of skin (tvac) are distinguished:<sup>140</sup> udakadharā;<sup>141</sup> asrgdharā;<sup>142</sup> the third layer, in which sidhma<sup>143</sup> and kilāsa<sup>144</sup> have their origin;<sup>145</sup> the fourth layer, from which dadru and kuṣṭha<sup>146</sup> originate;<sup>147</sup> the fifth layer, which is the seat of alajī and vidradhi;<sup>148</sup> the sixth layer, which, when cut, causes fainting,<sup>149</sup> is the seat of a type of blackish red boils (arūṃṣi)<sup>150</sup> (7.4).<sup>151</sup>

The body is composed of six main parts: the two arms (bāhu), the two legs (sakthi), head and neck, and trunk (antarādhi) (7.5).<sup>152</sup>

The bones, together with the sockets (ulūkhala) of the teeth and the nails, are three hundred and sixty in number (7.6).<sup>153</sup>

These bones consist of: thirty-two teeth, thirty-two sockets of the teeth (dan-tolūkhala),<sup>154</sup> twenty nails, sixty phalanxes in fingers and toes (pāṇipādāṅgulyasthi),<sup>155</sup> twenty metacarpal and metatarsal bones (pāṇipādaśālākā),<sup>156</sup> four bases of the metacarpal and metatarsal bones (pāṇipādaśālākādhiṣṭhāna),<sup>157</sup> two bones in the heels (pārṣṇī),<sup>158</sup> four bones in the ankles (gulpha),<sup>159</sup> two wrist-bones (maṇika),<sup>160</sup> four bones in the forearms (aratni), four bones in the lower legs (jaṅghā),<sup>161</sup> two bones in the knees (jānu),<sup>162</sup> two kneecaps (jānukapālīkā),<sup>163</sup> two long bones in the thighs (ūrunalaka), two long bones in the upper arms (bāhunālaka), two bones in the shoulders (arṃsa),<sup>164</sup> two shoulder blades (arṃsaphalaka),<sup>165</sup> two clavicles (akṣaka),<sup>166</sup> one breastbone (jātru),<sup>167</sup> two bones in the palate (tālūkā),<sup>168</sup> two flat pelvic bones (śronīphalaka),<sup>169</sup> one pubic bone (bhagāsthi),<sup>170</sup> forty-five bones in the

back (pr̥sthagatāsthī),<sup>171</sup> fifteen bones in the neck (grīvā),<sup>172</sup> fourteen bones in the front part of the chest (uras),<sup>173</sup> twenty-four ribs (parśuka),<sup>174</sup> twenty-four sockets (sthālakā) of the ribs,<sup>175</sup> twenty-four tubercles (arbuda) for the sthālakas,<sup>176</sup> one jaw bone (hanvasthi), two connecting bones at the roots of the jaw bone (hanumūlabandhana),<sup>177</sup> one bone constituting the nose (nāsikā), the prominent parts of the cheeks (gaṇḍakūṭa), and the forehead (lalāṭa),<sup>178</sup> two bones in the temples (śarīkha),<sup>179</sup> and four flat skull bones (śīraḥkapāla).<sup>180</sup>

There are five seats of the senses: skin, tongue, nose, eyes and ears; five senses (buddhīndriya): the tactile, gustatory, olfactory, visual and auditory sense; five motor organs (kammendriya): hands, feet, anus (pāyu), genitals (upastha) and tongue (7.7). There is one heart, which is the seat of consciousness (cetanādhātu) (7.8).<sup>181</sup>

There are ten seats (āyatana) of the prāṇas: head, throat, heart, navel, anal region, bladder, ojas, semen, blood and muscular tissue (7.9).<sup>182</sup>

The viscera (koṣṭhāṅgāni) are fifteen in number: navel (nābhi), heart (hr̥daya), kloman,<sup>183</sup> liver (yakṛt),<sup>184</sup> spleen (plīhan), the two kidneys (vṛkka),<sup>185</sup> urinary bladder (basti), receptacle of the faeces (purīṣādhāra),<sup>186</sup> receptacle of undigested food (āmāśaya),<sup>187</sup> receptacle of digested food (pakvāśaya),<sup>188</sup> the upper part of the rectum (uttaraguda), the lower part of the rectum (adharaguda),<sup>189</sup> small intestine (kṣudrāntṛa), large intestine (sthūlāntṛa),<sup>190</sup> and omentum (vapāvahana)<sup>191</sup> (7.10).<sup>192</sup>

The minor parts (pratyāṅga) of the body, into which the main parts are subdivided, are fifty-six in number:<sup>193</sup> two jaṅghāpiṇḍikās (calves),<sup>194</sup> two ūrupiṇḍikās,<sup>195</sup> the two parts called sp̥hic (buttock),<sup>196</sup> two vṛṣaṇas (testicles),<sup>197</sup> the śēphas (penis),<sup>198</sup> two ukhās (armpits),<sup>199</sup> two vaiṣkaṇas (groins),<sup>200</sup> two kukundaras,<sup>201</sup> one bastiśīrṣa,<sup>202</sup> one udara (abdomen),<sup>203</sup> two stanās (breasts),<sup>204</sup> two parts called śleṣmabhū,<sup>205</sup> two bāhupiṇḍikās,<sup>206</sup> one cibuka (chin),<sup>207</sup> two oṣṭhas (lips),<sup>208</sup> two sr̥kkaṇīs (corners of the mouth),<sup>209</sup> two dantaveṣṭakas (the gums of the two halves of the mouth),<sup>210</sup> one tālu (palate),<sup>211</sup> one galaśuṇḍikā (uvula),<sup>212</sup> two upajihvikās,<sup>213</sup> one gojihvikā (tongue),<sup>214</sup> two gaṇḍas (cheeks),<sup>215</sup> two karnaśaṣkulikās,<sup>216</sup> two karnaṣuttrakas,<sup>217</sup> two akṣikūṭas,<sup>218</sup> four parts called akṣivartman (the eyelids),<sup>219</sup> two akṣikanīnikās,<sup>220</sup> two parts called bhrū (the eyebrow),<sup>221</sup> one avaṭu,<sup>222</sup> four hr̥dayas of hands and feet (the palms and soles)<sup>223</sup> (7.11).<sup>224</sup>

The nine orifices (chidra) are nine in number: seven in the head and two below (7.12).<sup>225</sup>

The parts so far mentioned are visible; the remaining ones are invisible and their number has to be deduced by reasoning (7.13).

The snāyus are nine hundred in number,<sup>226</sup> the sirās<sup>227</sup> seven hundred,<sup>228</sup> the dhamaṇīs<sup>229</sup> two hundred,<sup>230</sup> the peṣīs (muscles) four hundred,<sup>231</sup> the marmans (vulnerable spots) one hundred and seven,<sup>232</sup> the sandhis (junctures)<sup>233</sup> two hundred.<sup>234</sup> The terminal openings (mukhāgra) of the minute branches of sirās and dhamaṇīs, as well as the hairs of scalp, face and body are 29,956 in number (7.14).<sup>235</sup>

Bodily constituents, measurable in añjalīs,<sup>236</sup> are dealt with next. The standard quantities are given; the figures are reached by reasoning (tarka).<sup>237</sup> Quantities mentioned are: ten añjali of watery fluid (udaka),<sup>238</sup> nine of rasa as a fluid resulting from the digestion of the food, eight of blood, seven of faeces, six of kapha, five

of pitta, four of urine, three of vasā, two of medas, one of majjā; half an añjali of mastiṣka (brain tissue),<sup>239</sup> śukra (semen) and ślaiṣmika ojas<sup>240</sup> (7.15).

Components and functions of the body which are regarded as mainly connected with one of the five mahābhūtas are enumerated (7.16).<sup>241</sup>

Prthivī (earth) is predominantly present in parts which are sthūla (gross), sthira (firm), mūrtimant (endowed with a particular form), guru (heavy), khara (rough), and kaṭhina (hard); it also predominates in the nakhas (nails), asthis (bones), dantas (teeth), māṃsa (muscular tissue), carman (the outer layer of the skin),<sup>242</sup> varcas (faeces), keśa (hairs of the scalp), śmaśru (beard hair), loman (body hair), the kaṇḍarās,<sup>243</sup> gandha (smell) and ghrāṇa (the olfactory sense). Ap (water) predominates in parts which are drava (fluid), sara (mobile), manda (sluggish), snigdha (oleaginous), mṛdu (soft) and picchila (mucilaginous); it also predominates in rasa (nutrient fluid), rudhira (blood), vasā (muscle fat), kapha, pitta, mūtra (urine), sveda (sweat), rasa (taste), and rasana (the gustatory sense). Agni (fire) predominates in pitta, ūṣman (heat), bhās (lustre), rūpa (vision) and darśana (the visual sense). Vāyu (air) predominates in ucchvāsa (expiration), praśvāsa (inspiration), unmeṣa (opening of the eyes), mimeṣa (closing of the eyes), ākuñcana (contraction), praśāraṇa (extension), gamana (locomotion), preraṇa (impelling), dhāraṇa (retention), sparśa (touch), and sparśana (the tactile sense). Antarikṣa (= ākāśa) predominates in vivikta parts (interstices), vāc (speech), large and minute vessels (srotas), śabda (sound), and śrotra (the auditory sense) (7.16).

With respect to their division into atoms (paramāṇu), the component parts of the body are countless, because these atoms are present in very large numbers, of very minute size and imperceptible. Conjunction (saṃyoga) and disjunction (vibhāga) of the atoms is caused by vāyu and the own nature (svabhāva) of karman (movement) (7.17).

The view that the composite body is one whole leads to attachment (saṅga), the insight that its parts are separate to final emancipation (apavarga).

Chapter eight, called jātisūtrīya,<sup>244</sup> deals with procreation, the management of pregnancy and delivery,<sup>245</sup> the care of the woman in childbed,<sup>246</sup> the care of the newborn child, etc.

The topics discussed first are: rules for sexual intercourse (8.3–8);<sup>247</sup> rules and rituals ensuring desired characteristics<sup>248</sup> in the son to be conceived (8.9–14).<sup>249</sup> Apart from these behavioural rules and rituals, the complexion of a son will be determined by the relative preponderance of the mahābhūtas; tejas (fire), when associated with udaka (water) and antarikṣa (= ākāśa), furthers a fair (avadhūta) complexion, when associated with prthivī (earth) and vāyu (air) a dark (kṛṣṇa) complexion, while balance of the five gives rise to a śyāma<sup>250</sup> colour of the skin (8.15).<sup>251</sup> Factors influencing the sattva of the child are added (8.16).

The puṃsavana ritual,<sup>252</sup> aiming at the conception of a son,<sup>253</sup> is described<sup>254</sup> (8.19),<sup>255</sup> followed by measures promoting the maintenance of the pregnancy (garbhasthāpana; 8.20). Factors which are harmful to the unborn child (garbhopaghātakara) and may lead to its death, to abortion, particular defects, and diseases are discussed (8.21).<sup>256</sup>

Rules for the management of pregnancy are dealt with (8.22).

The next section is concerned with disorders occurring during pregnancy and their treatment (8.23–31).<sup>257</sup>

Disorders described are: bleeding (puṣpadarśana), bleeding associated with āma, upaviṣṭaka (prolongation of the gestation period), nāgodara (death of the child within the womb, followed by withering), udāvarta, vibandha (chronic obstipation), and death of the unborn child (mr̥tagarbhā); extraction (haraṇa) of a dead child (called a śalya) by a specialist (garbhahartar) is discussed.<sup>258</sup>

The monthly regimen during pregnancy is dealt with.<sup>259</sup> Ātreya rejects an opinion current among women and gives his view on the development of striae (kikkisa);<sup>260</sup> he also refutes Bhadrakāpya's thesis on the origin of tawnyness (paingalya) in the child (8.32).<sup>261</sup>

The construction of the birth-chamber (sūtikāgāra), its equipment, the way it should be occupied by the expectant mother (8.33–35),<sup>262</sup> the signs heralding parturition, and the management of delivery<sup>263</sup> are discussed (8.36–40),<sup>264</sup> followed by the measures to be taken when the placenta (aparā) does not come out spontaneously<sup>265</sup> (8.41).<sup>266</sup>

The care for the child immediately after birth is described (8.42–43);<sup>267</sup> the cutting of the umbilical cord (nāḍīkalpana);<sup>268</sup> the treatment when it becomes inflamed; the disorders resulting from improper handling of the cord: āyamottuṇḍikā (lengthwise swelling), vyāyamottuṇḍitā (breadthwise swelling), piṇḍalikā (a circular swelling), vināmikā (swelling of the periphery and depression of the centre), and vijṛmbhikā (a gradual increase in size);<sup>269</sup> the treatment of these disorders (8.42–45).<sup>270</sup>

The birth-ceremony (jātakarman)<sup>271</sup> should then be performed,<sup>272</sup> the first feeding should take place (8.46),<sup>273</sup> and measures should be taken which protect mother and child (8.47).<sup>274</sup> The regimen of a woman who has recently given birth to a child is described; great care is necessary, since disorders arising in this period are grave, curable with difficulty or incurable (8.48–49).<sup>275</sup>

The naming ceremony (nāmakaraṇa)<sup>276</sup> is described (8.50).<sup>277</sup> After this ceremony, the child should be examined with a view to determining its life span (āyus). A long list is given of characteristics indicating a long life (8.51).<sup>278</sup>

The next subject is the wet-nurse (dhātṛī): desirable qualities of a wet-nurse as a person, desirable characteristics of her breasts and breastmilk are dealt with (8.52–54).<sup>279</sup> Disorders of the breastmilk (kṣīradoṣa) by vāta, pitta, kapha are described,<sup>280</sup> followed by measures purifying the milk (kṣīraviśodhana) and promoting its production (kṣīrajanana) (8.55–57).<sup>281</sup> The proper way of breastfeeding is described (8.58).<sup>282</sup>

The chapter ends with prescriptions for the arrangement of the nursery (kumārā-gāra), amulets (maṇi) to be worn by the child,<sup>283</sup> toys (krīḍanaka),<sup>284</sup> the behaviour of adults towards the child,<sup>285</sup> and the general treatment of children's diseases (8.59–66).

## Chapter 5

### Indriyasthāna

The Indriyasthāna<sup>1</sup> is concerned with signs foretelling death.<sup>2</sup>

Chapter one,<sup>3</sup> called *varṇasvarīya*, begins with enumerating the factors to be taken into consideration by a physician wishing to determine the remaining span of life of a patient.<sup>4</sup> The list of these factors, comprising forty-seven items, covers all the topics discussed in the Indriyasthāna (1.3).<sup>5</sup>

Some factors, which do not relate to the patient as a person,<sup>6</sup> should be judged by means of authoritative statements (*upadeśa*) and *yukti*, while the factors relating to the normal condition (*prakṛti*) of the patient and morbid changes in that condition (*vikṛti*) should be carefully observed (1.4).

The normal condition of a patient depends on his birth within a particular social group (*jāti*), his family lineage (*kula*), his place of residence (*deśa*), the period of time (*kāla*), his age (*vayas*), and individual characteristics (1.5).

Morbid changes are of three types: caused by bodily marks (*lakṣaṇanimitta*), caused by aetiological factors (*lakṣyanimitta*) and caused by factors resembling aetiological factors (*nimittānurūpa*) (1.6).

The first type consists of changes, appearing at their appropriate time, which are the result of bodily marks, acquired by an individual due to fate (*daiva*);<sup>7</sup> the second type is caused by factors discussed under the *nidāna* of the various diseases; the third type consists of changes which appear without any apparent cause (*animitta*) and are indicative of the remaining measure of the patient's life span. The changes of the third type will be more elaborately discussed (1.7).<sup>8</sup>

The normal complexion (*varṇa*) is of four main types:<sup>9</sup> *kṛṣṇa* (black), *śyāma* (brown),<sup>10</sup> *śyāmāvadāta*, and *avadāta* (fair);<sup>11</sup> other shades should be learnt from the experts (1.8).<sup>12</sup> Abnormal colours of the complexion are: *nīla* (dark blue), *śyāva* (grey),<sup>13</sup> *tāmra* (coppery red), *harita* (yellowish green), and *śukla* (white) (1.9).<sup>14</sup>

A series of premonitory signs (*ariṣṭa*), relating to a patient's complexion and indicating a fatal outcome, are described (1.10–13).

Normal types of voice (*svara*) are then enumerated, followed by abnormal types and inauspicious signs relating to a patient's voice (1.14–15).<sup>15</sup> The chapter ends with verses on characteristics of the complexion and the voice which point to a fatal course of the illness (1.17–25).<sup>16</sup>

Chapter two, called *puṣpitaka*, compares the connection between a fatal sign (*ariṣṭa*) and death with that between a flower (*puṣpa*) and the fruit it produces (2.3–5).<sup>17</sup> Pa-





and tall,<sup>38</sup> of two types according to their shape: balanced (*suṣama*) and imbalanced (*viṣama*) (7.8).

The *praticchāyā* (reflected image) is to be assessed according to its measurement (*pramāṇa*) and shape (*saṁsthāna*), while the *chāyā* (shadow) depends on a person's complexion (*varṇa*)<sup>39</sup> and lustre (*prabhā*) (7.9).<sup>40</sup>

*Chāyā* is of five types, according to the predominance of one of the five *mahābhūtas*; the *chāyā* dominated by *vāyu* is inauspicious, the other four types are auspicious (7.10–13).<sup>41</sup>

*Prabhā* is fiery (*taijāsī*) in nature and of seven types: red, yellow, white, grey (*śyāva*), yellowish green (*harita*), pale (*pāṇḍura*) and dark (*asita*); auspicious kinds of *prabhā* are those which are *vikāsin*,<sup>42</sup> *snigdha* (glossy) and *vipula*;<sup>43</sup> inauspicious are those which are *dry* (*rūkṣa*), dirty (*malina*) and contracted (*saṁkṣipta*) (7.14–15).

*Chāyā* makes *varṇa* indistinct (*ākramati*), whereas (*pra*)*bhā* enhances (*prakāśin*) it; *chāyā* can be observed from nearby, (*pra*)*bhā* from a distance (7.16–17).

Various *arīṣṭas* are described in the second part of the chapter (7.18–31).

Chapter eight, called *avākśirasīya*,<sup>44</sup> is concerned with *arīṣṭas* indicating the advent of death within a few days.<sup>45</sup>

Chapter nine, called *yasyaśyāvanimittīya*, describes a number of *arīṣṭas*.<sup>46</sup>

This chapter contains some verses of particular interest; the survival of a weak patient who gets rid of his disease all of a sudden is doubtful according to Ātreya; if his relations insist on it, a physician may prescribe meat soup to such a patient; his life is in danger if he does not improve after a month on this diet (9.15–17).<sup>47</sup>

Chapter ten,<sup>48</sup> called *sadyomaraṇīya*, describes signs indicating sudden death.<sup>49</sup>

Chapter eleven, called *aṇujyotīya*,<sup>50</sup> deals with *arīṣṭas* foreboding death within a year (11.3–6), six months (11.7–9), one month (11.10–12), or an unspecified period of time (11.13–26).

An *arīṣṭa* is defined as a sign produced by *doṣas* which have transcended the range of treatment and pervaded the whole body (11.29).<sup>51</sup>

Chapter twelve, called *gomayacūrṇīya*, begins with a short series of *arīṣṭas* (12.3–8).<sup>52</sup> It proceeds with *omina* relating to the messenger (*dūta*) sent to the physician by the patient or his relatives (12.9–24),<sup>53</sup> *omina*<sup>54</sup> (*autpātika*) observed by the physician on his way to the patient (12.25–31)<sup>55</sup> and in the patient's domestic surroundings (12.32–39).<sup>56</sup>

The characteristics of a dying patient are described (12.43–61). The physician should not disclose to a patient or his relatives that he has observed the signs of imminent death without having been requested to do so; he should withhold this information even on request if it is liable to cause harm (12.62–64). A physician who has noticed signs indicative of recovery should certainly announce this (12.65–66).

Auspicious *omina* relating to the messenger and to occurrences on the way to the patient and in his house are dealt with in the last part of the chapter (12.67–88).<sup>57</sup>

## Chapter 6 Cikitsāsthāna

Chapter one, divided into four parts (pāda),<sup>1</sup> deals with rasāyana.<sup>2</sup>

Part one, called abhayāmalakīya, describes rasāyanas containing abhayā (= harī-takī) and āmalakī.

Synonyms of therapy (bheṣaja, cikitsita, etc.) are enumerated (1.3–4a). Therapy is of two kinds: promoting vitality (ūrja) in the healthy and dispelling disease (roganud) in patients (ārta); its opposite, adverse treatment (abheṣaja), produces its effects for a short or a long time<sup>3</sup> (1.4b–5ab). Treatment aiming at the promotion of vitality consists of rasāyana and vājīkaraṇa; both types of therapy mentioned are, however, useful for these two purposes (1.5cd–6).<sup>4</sup> Rasāyana and vājīkaraṇa are described according to the effects produced by them (1.7–12).

Rasāyana treatment<sup>5</sup> is of two types: kuṭīprāveśika (inside a cottage constructed for the purpose)<sup>6</sup> and vātātapika (in the open air).<sup>7</sup> The cottage (kuṭī) and the preparatory stages of the treatment are described (1.16–28).

The properties and actions of harītakī are discussed;<sup>8</sup> āmalakī has the same properties and actions, apart from its vīrya, which is the opposite of that of harītakī<sup>9</sup> (1.29–37). The fruits of both plants should be collected in the Himālayas (1.38–40).

Six rasāyana formulations are described: two kinds of brāhmarasāyana,<sup>10</sup> cya-vanaprāśa,<sup>11</sup> āmalakarasāyana,<sup>12</sup> and two kinds of harītakīyoga. These preparations made the Vaikhāṇasas,<sup>13</sup> Vāḷakhilyas,<sup>14</sup> Cyavana, and other sages attain a very long span of life, free from disease and decrepitude (1.41–77).

Rasāyana preparations, comparable to the amṛta of the gods and the sudhā of the serpents, enabled the great sages to live, endowed with youthful vigour, for thousands of years. Someone who methodically employs rasāyana does not only live for a long time, but he also acquires the status of the divine sages and is finally united with the indestructible brahman (1.78–80).

Part two of chapter one, called prāṇakāmīya, begins with praising the effects of rasāyana treatment (2.3).

Several formulations are described: āmalakaghṛta (2.4–6), āmalakāvaleha (2.7), āmalakacūrṇa (2.8), viḍaṅgāvaleha (2.9),<sup>15</sup> a second āmalakāvaleha (2.10), nāga-balārasāyana (2.11),<sup>16</sup> a recipe without a name (2.12), bhallātakakṣīra (2.13),<sup>17</sup> bhallātakakṣaudra (2.14), and bhallātakataila (2.15).<sup>18</sup>

Ten forms of bhallātaka preparations are employed: bhallātakaghṛta,<sup>19</sup> -kṣīra, -kṣaudra, -guḍa,<sup>20</sup> -yūṣa, -taila, -palala, -saktu, -lavaṇa, and -tarpaṇa (2.16).<sup>21</sup>

Part three, called karapracitīya, describes sixteen rasāyana formulations (3.66).

It begins with preparations of āmalakī fruits, culled by hand (karapracita). The first

of these is āmalakāyasabrāhmarasāyana, deriving from Brahmā, and successfully used by Vasiṣṭha, Kaśyapa, Aṅgiras, Jamadagni, Bharadvāja, Bhṛgu, and other ancient sages (3.3–6). The proper way of having recourse to rasāyana, illustrated by the behaviour of the great sages, is discussed (3.7–8). The kevalāmalakarasāyana is dealt with (3.9–14).

Other rasāyana preparations described are: lauhādirasāyana (3.15–23),<sup>22</sup> aindra rasāyana (3.24–29),<sup>23</sup> a series of four medhyarasāyanas<sup>24</sup> (3.30–31),<sup>25</sup> pippalīrasāyana (3.32–35),<sup>26</sup> pippalīvardhamāna (3.36–40),<sup>27</sup> and four kinds of triphalārasāyana<sup>28</sup> (3.41–47).

The properties, actions and uses of śilājatu<sup>29</sup> are discussed, a substance that cures all diseases. Its potency is enhanced (vīryotkarṣa) by steeping (bhāvanā<sup>30</sup>, āloḍana) this substance in various fluids. Four varieties are distinguished, originating from gold, silver, copper and iron ores,<sup>31</sup> to be used specifically against disorders caused by vāta and pitta, kapha and pitta, kapha, and all three doṣas. The variety deriving from iron ore is preferable for rasāyana purposes (3.48–65).<sup>32</sup>

Part four, called āyurvedasamutthānīya, opens with a second story on the divine origin of āyurveda.<sup>33</sup>

This narrative introduces a group of sages, consisting of Agastya, Aṅgiras, Asita, Atri, Bhṛgu, Gautama, Kaśyapa, Pulastya, Vāmadeva, Vasiṣṭha, and others. The health of these sages had deteriorated due to their adoption of the way of living customary in cities and villages.<sup>34</sup> Being no longer able to perform their duties, they repaired to the Himālayas, where Indra transmitted to them the āyurveda (4.3–5).<sup>35</sup>

Indra makes the sages acquainted with a series of vitalizing (jīvanīya) plants,<sup>36</sup> growing in the Himālayas, which, when taken with milk for six months, bestow a maximum life span (paramāyus); the plants mentioned by name are: aindrī, brāhmrī,<sup>37</sup> payasyā, kṣīrapuṣpī, śrāvaṇī, mahāśrāvaṇī, śatāvārī,<sup>38</sup> vidārī,<sup>39</sup> jīvanti,<sup>40</sup> punarnavā, nāgabālā,<sup>41</sup> sthīrā, vacā,<sup>42</sup> chattuṣā, aticchattrā, medā, and mahāmedā (indrokta rasāyana; 4.6).<sup>43</sup>

Indra proceeds with his teachings on rasāyana by describing nine divine herbs (divyausadhi): brahmasuvarcalā, ādityapamī (also called sūryakāntā),<sup>44</sup> aśvabalā, kāṣṭhagodhā, sarpanāmā, soma, padmā, ajā (also called ajaśṛṅgi), and mīlā,<sup>45</sup> and the use made of these herbs in a course of treatment that results in making one the equal of the gods in outward appearance and that provides a life span of a thousand years (4.7).<sup>46</sup> This treatment, perfectly suitable only to sages with a controlled mind (kṛtātman), will enable them to perform all their duties; vānaprasthas<sup>47</sup> and grhasthas<sup>48</sup> with a sufficiently disciplined mind (niyatātman) may also resort to it (4.8–10). The same herbs, when growing in another habitat than the Himālayas, have a less powerful effect.

Persons not belonging to the mentioned categories are advised to resort to other rasāyana procedures (4.11–12).<sup>49</sup>

Such a procedure, of a complex nature, is described; the groups of ten drugs each which are balya, jīvanīya, brñhanīya and vayahsthāpana,<sup>50</sup> together with many others, among which a series of powdered (cūrṇa) inorganic substances, are employed in it (4.13–26).

Persons who are wealthy, healthy and self-controlled are suitable to the kuṭīpraveśa

type of rasāyana; others should make use of the sauryamārutika (= vātātāpika) type (4.27–29).<sup>51</sup>

The requirements to be met for a successful use of rasāyana are discussed in detail (4.30–38).<sup>52</sup>

A qualified physician (prāñcārya)<sup>53</sup> deserves the same honour as that bestowed on the Aśvins by Indra. The feats of the Aśvins<sup>54</sup> are referred to: they restored the cut-off head of the sacrifice, treated Pūṣan whose teeth had fallen out, cured Bhaga who had lost his eyesight, Indra when his arms were stiff, and Śītāṃśu (= Candra), when he suffered from rājayakṣman; they made the old and decrepit Cyavana young again, etc. (4.39–44). The Aśvins are therefore honoured by Indra and other gods, and the twice-born offer to them grahas,<sup>55</sup> stotras,<sup>56</sup> various oblations (havis), and smoke-coloured sacrificial animals (4.45–49).<sup>57</sup> Physicians should be honoured in the same way as the Aśvins (4.50–51).

A physician who has completed a full course of training obtains a sattva (mental disposition) of the brāhma or ārṣa type<sup>58</sup> and is called thrice-born (trija)<sup>59</sup> (4.52–54). The ethical principles he should adhere to are outlined (4.55–62).

Chapter two, on vājīkaraṇa (aphrodisiacs),<sup>60</sup> is divided into four parts (pāda).

Part one, called samyogaśāramūlīya, begins with the praise of aphrodisiacs, a description of the type of woman most attractive to a man, and the merits of having a numerous offspring (1.3–24ab).

Fifteen<sup>61</sup> aphrodisiac formulations are discussed, many of which contain substances of animal origin. These recipes are: br̥ṃhañīguṭikā (1.24cd–33ab), vājīkaraṇagṛtha (1.33cd–38ab),<sup>62</sup> four varieties of vājīkaraṇapiṇḍarasa (1.38cd–41),<sup>63</sup> vṛṣyamāhiṣarasa (1.42–43),<sup>64</sup> four different varieties of vṛṣyarasa (1.44–45),<sup>65</sup> vṛṣyamāṃsa (1.46),<sup>66</sup> vṛṣyamāṣayoga (1.47),<sup>67</sup> vṛṣyakukkuṭamāṃsaprayoga (1.48),<sup>68</sup> and vṛṣyāñḍarasa (1.49–50ab).<sup>69</sup>

Part two, called āsiktakṣīrika, deals with a series of eight aphrodisiac recipes: ṣaṣṭikādiguṭikā (2.3–9),<sup>70</sup> vṛṣyapūpalikādiyoga (2.10–13),<sup>71</sup> apatyakarasavarasa (2.14–17),<sup>72</sup> vṛṣyakṣīra (2.18–20),<sup>73</sup> vṛṣyagṛtha (2.21–23),<sup>74</sup> vṛṣyadadhiraṣaprayoga (2.24–26), vṛṣyaṣaṣṭikaudanaprayoga (2.27), and vṛṣyapūpalikā (2.28–29).<sup>75</sup>

Part three, called māṣaparnābhṛtī, is about sexually stimulating prescriptions which do not contain substances of animal origin, milk excepted (3.3–19).

Recipes with a name are: vṛṣyapippalīyoga (3.12–13), vṛṣyapāyasaṣyoga (3.14), vṛṣyapūpalikā (3.15–17), vṛṣyaśatāvāriṅgṛtha (3.18), and vṛṣyamadhukayoga (3.19).

This section is followed by the characteristics of a fully potent male, various circumstances favouring the sexual urge, diverse sources of sexual excitement, etc. (3.20–30).<sup>76</sup>

Part four, called pumāñjātabalādika, describes four types of sexual vigour in the male: dependent on the season (kāla), practice (abhyasana), effort (prayatna),<sup>77</sup> and constitution (svabhāva) (4.3–7).

Twelve formulations are described which improve sexual vigour in the weak and further increase it in those already strong: vṛṣyamāṃsaguṭikā (4.11–14), vṛṣyamāhiṣarasa (4.15–16), vṛṣyagṛthabhr̥ṣṭamatsyamāṃsa (4.17–18),<sup>78</sup> two vṛ-

śyapūpalikāyogas (4.19–22),<sup>79</sup> vṛṣyamāṣādipūpalikā (4.23–24),<sup>80</sup> apatyakaraḡṛta (4.28–29), vṛṣyaguṭikā (4.30–32), and vṛṣyotkārikā (4.33–35).

Rules for sexual behaviour are formulated (4.36–45). Semen is described and the eight factors leading to its discharge: harṣa (physical sexual stimulation), tarṣa (mental sexual stimulation), saratva (fluidity of the semen), paicchilya (sliminess of the semen), gaurava (heaviness of the semen), aṇupraṇavabhāva (the tendency of the semen, although of a small amount, to be ejaculated), mārutadrutatva (the impulse of vāyu to expel the semen) (4.46–50).<sup>81</sup>

The chapters ends with a definition of vājīkaraṇa (4.51).

Chapter three is concerned with fevers (jvara) and their treatment.<sup>82</sup>

Agniveśa puts eighteen questions on these subjects, to be elucidated by Ātreya (3.4–10).

The synonyms of jvara are listed (3.11). Its directly causative factors (prakṛti)<sup>83</sup> are the bodily and mental doṣas (3.12). The essence<sup>84</sup> of fever can be defined as kṣaya (wasting), tamas (entering into darkness), pāpman (sinfulness)<sup>85</sup> and mṛtyu (death), which are features belonging to Yama<sup>86</sup> (3.13).

The appearance (prāvṛtti) of fever is due to attachment to one's property (parigraha)<sup>87</sup> and to the wrath of Rudra<sup>88</sup> (3.14). The mythic origin of jvara is described; it arose, as the being called Vīrabhadra,<sup>89</sup> during the Tretāyuga from Śiva's anger during Dakṣa's sacrifice (3.15–25).<sup>90</sup>

Specific characteristics (prabhāva) of fever are saṃtāpa (heat), aruci (loss of appetite), tṛṣṇā (thirst), aṇigamarda (aches in the whole body) and hṛdvayathā (distress in the cardiac region) (3.26).<sup>91</sup>

The causes of the eight types of fever are not discussed, being dealt with already in the Nidānasthāna (3.27cd). The prodromes, however, are enumerated again (3.28–29).<sup>92</sup> Fever is located in the entire body, along with the mind;<sup>93</sup> the periods of time and its strength have been discussed in the Nidānasthāna (3.30).<sup>94</sup> The invariable sign of fever is general heat (saṃtāpa) of body and mind (3.31).

Fevers are classified in various ways:<sup>95</sup> somatic (śārīra) and psychic (mānasa), saumya and āgneya, antarvega and bahirvega, prākṛta and vaikṛta, curable and incurable; they are of five types according to the strength or weakness of the doṣas in relation to time: saṃtata, satata, anyedyuṣka, tṛtīyaka and caturthaka; they are of seven types according to their location in the elements of the body; they are of eight types according to their causes (i.e., the doṣas) (3.32–35).<sup>96</sup>

The types mentioned are described. A somatic fever starts in the body, a mental fever in the mind; the signs of mental heat are enumerated; bodily heat affects the organs of sense too (3.36–37ab). A fever predominant in vāta and pitta leads to a desire for cold and cooling things, a fever predominant in vāta and kapha to a desire for warmth and heating things (3.37cd–38ab);<sup>97</sup> vāta is characterized as a synergist (yogavāha), producing heat in combination with pitta, coldness in combination with kapha (3.38cd–39ab).

The symptoms of antarvega (internal)<sup>98</sup> and bahirvega (external) fever are mentioned (3.39cd–41).<sup>99</sup> Prākṛta and vaikṛta fevers are discussed; a fever is prākṛta if the

predominant doṣa corresponds to the season in which it arises, vaikṛta if the doṣa disagrees with the season;<sup>100</sup> vāta fever is peculiar in being difficult to cure, even when it is prākṛta (3.42–49). Curable and incurable fevers are characterized (3.50–52ab).<sup>101</sup> Two special types of incurable fever are described (3.52cd–53ab).<sup>102</sup>

The fevers called saṃtata,<sup>103</sup> satataka,<sup>104</sup> anyedyuṣka,<sup>105</sup> trīyaka and caturthaka are dealt with;<sup>106</sup> trīyaka is of three, caturthaka of two varieties (3.53cd–72).<sup>107</sup> A special type of viṣamajvara (irregular, intermittent fever) is the type called caturthakaviparyaya (reversed quartan fever) (3.73).<sup>108</sup> The five types of viṣamajvara mentioned<sup>109</sup> are usually caused by a combination of all three doṣas, but designated after the predominant one (3.74).

The symptoms of fevers seated in the elements of the body are described (3.76–83),<sup>110</sup> followed by those caused by two doṣas (3.84–89c).<sup>111</sup> Twelve varieties of saṃnipāta fever are described, distinguished according to the degree to which each of the three doṣas is excited (3.89d–102),<sup>112</sup> followed by a thirteenth variety in which all three doṣas are excited to an equal degree (3.103–109ab).<sup>113</sup> A saṃnipāta fever is incurable when all its symptoms have developed; when otherwise, it is curable with difficulty (3.109cd–110ab).<sup>114</sup>

Āgantū fevers, which are secondarily associated with the doṣas, are of four types: caused by abhigḥāta (injury), abhiṣaṅga (intense emotions)<sup>115</sup> and possession by evil beings), abhicāra (sorcery)<sup>116</sup> and abhiśāpa (curses);<sup>117</sup> these four types are discussed; some are said to regard a fever caused by the contact with air carrying poisonous substances from particular trees as belonging to the type called abhiṣaṅga ja (3.111cd–129ab).<sup>118</sup>

The pathogenesis of fever is dealt with next (3.129cd–132ab).<sup>119</sup>

Three stages of fever are discussed: fresh (taruṇa),<sup>120</sup> maturing (pacyamāna), and devoid of immature matter (nirāma)<sup>121</sup> (3.132cd–138ab).<sup>122</sup>

The larger portion of the remaining part of the chapter (3.138cd–324ab) is devoted to the treatment of fevers.<sup>123</sup>

Recipes provided with a name are candanādyataila (3.258)<sup>124</sup> and agurvādyataila (3.267).<sup>125</sup>

A swelling (śoṭha) at the root of the ear<sup>126</sup> is described as a very serious complication of fever (3.287cd–289ab). A type of fever located in the peripheral parts of the body (the branches, śākhā), called śākhānusārīn, should be treated by means of blood-letting (3.289cd–290ab). Fevers regarded as a complication of visarpa (erysipelas), abhigḥāta (trauma) and visphoṭaka (vesicular eruptions) are separately mentioned (3.290cd–291ab).

Worship of Śiva<sup>127</sup> and Umā, together with their attendants<sup>128</sup> and the group of the Mothers,<sup>129</sup> recitation of the *Viṣṇusahasranāmastotra*, i.e., an enumeration of the thousand names of Viṣṇu<sup>130</sup>, sacrifices to Brahmā, the Aśvins, Indra, Agni, the Himālaya, the Ganges, and the groups of Maruts,<sup>131</sup> etc., are recommended as means to release from fever (3.310cd–315ab).<sup>132</sup>

The chapter ends with the signs of release (mokṣa) from fever, the rules to be adhered to during convalescence, relapses (punarāvartana) and their management (3.324cd–343).

Chapter four, on raktapitta, begins with the nidāna (4.5–6)<sup>133</sup> and samprāpti (4.7–8) of raktapitta,<sup>134</sup> the elucidation of its name (4.9),<sup>135</sup> and its location: spleen and liver,<sup>136</sup> whence it spreads throughout the body (4.10).<sup>137</sup>

The symptoms of raktapitta associated with one, two or three doṣas are dealt with (4.11–13ab).<sup>138</sup> It is curable when associated with one doṣa, palliable when associated with two, and incurable when associated with three doṣas; a series of other circumstances making it incurable are mentioned (4.13cd–14).

The upwards moving type is curable, the downwards moving type palliable, the type moving both upwards and downwards incurable (4.15–16).<sup>139</sup> The type moving through all the holes<sup>140</sup> and the pores of the hairs (romakūpa) leads to certain death (4.17). Other conditions making raktapitta incurable are mentioned (4.18–20).<sup>141</sup> Conditions making it palliable (4.21) or curable (4.22) are enumerated next.

Specific aetiological factors are discussed; oleaginous (snigḍha) and hot substances usually lead to the upwards moving, oleaginous and dry (rūkṣa) substances to the downwards moving type; the upwards moving type is associated with kapha, the downwards moving type with vāyu<sup>142</sup> (4.23–24).

The remaining part of the chapter is devoted to the treatment of raktapitta (4.25–109).<sup>143</sup> Specific prescriptions against bleeding from the urethra (4.85), anus (4.86–87) and nose (4.97–101)<sup>144</sup> are described. Drugs useful against raktapitta are enumerated (4.102–104).

Recipes provided with a name are vāsāghṛta (4.88)<sup>145</sup> and śatāvaryādighṛta (4.95–96).<sup>146</sup>

Chapter five, on gulma, deals with the following subjects: factors causing excitement of vāyu in the viscera (koṣṭha) (5.4–5);<sup>147</sup> the samprāpti of the doṣic types of gulma (5.6–7);<sup>148</sup> the five seats of gulma: the region of the urinary bladder (basti), umbilical region (nābhi), cardiac region (hṛd) and the two sides of the chest (pārśva) (5.8ab);<sup>149</sup> the aetiology and symptomatology of gulma caused by vāta, pitta, kapha, two doṣas<sup>150</sup>, and all three doṣas<sup>151</sup> (5.8cd–17); the aetiology and symptomatology of gulma caused by blood,<sup>152</sup> occurring in fertile women only<sup>153</sup> (5.18–19).

A large part of the chapter is devoted to the treatment of gulma (5.20–182).<sup>154</sup>

Immature (apakva) gulma (5.40) and gulma in the stage of maturation (vidāha; 5.41–45)<sup>155</sup> are described, followed by the stage in which it may evacuate its doṣas on its own accord (svayampravṛtta; 5.46–48ab). Treatment of gulma by means of alkaline fluids (kṣāra; 5.56cd–58ab) and cauterization (dāha; 5.60cd–64ab), methods belonging to the domain of specialists,<sup>156</sup> is discussed.

Recipes against gulma which are provided with a name are: two kinds of tryūṣaṇādighṛta (5.65–66ab and 66cd–67ab),<sup>157</sup> hiṅgusauvarcalādyaghṛta (5.69–70),<sup>158</sup> hapuṣādyaghṛta (5.71–73),<sup>159</sup> pippalyādyaghṛta (5.74–75),<sup>160</sup> hiṅgvādicūrṇa<sup>161</sup> and -guṭikā (5.79–84), laśunakṣīra (5.94–95),<sup>162</sup> tailapañcaka (5.96), śilājatuprayoga (5.97), nīlīnyādyaghṛta (5.105–109),<sup>163</sup> rohiṇādyaghṛta (5.114–117), trāyamāṇādyaghṛta (5.118–121),<sup>164</sup> āmalakādyaghṛta (5.122), drākṣādyaghṛta (5.123–125),<sup>165</sup> vāsāghṛta (5.126–127),<sup>166</sup> daśamūlīghṛta (5.142), bhallātakādyaghṛta (5.143–146),<sup>167</sup>



kṣīraṣaṭpalakaghrta (5.147–148),<sup>168</sup> miśrakasneha (5.149–151),<sup>169</sup> and dantīharitākī (5.154–160).<sup>170</sup>

Chapter six is concerned with prameha.

It deals with the following subjects: the aetiology of prameha (6.4);<sup>171</sup> its samprāpti (6.5–6);<sup>172</sup> the curability of kaphaja prameha due to the similarity (samakriyatva) of the elements in its management;<sup>173</sup> the palliability of pittaaja prameha on account of the dissimilarity (viśamakriyatva) of these elements; the incurability of vātaaja prameha due to the severity (mahātyayikatva) of its nature (6.7); the three doṣas and ten dūṣyas responsible for the appearance of prameha (6.8);<sup>174</sup> the ten varieties of kaphaja prameha, six varieties of pittaaja prameha, and four varieties of vātaaja prameha (6.9–11);<sup>175</sup> the characteristics of the varieties of prameha relating to the colour, taste, smell and tactile properties of the urine (6.12); the prodromes of prameha (6.13–14);<sup>176</sup> general principles of the treatment of prameha<sup>177</sup> (6.15–26);<sup>178</sup> recipes to be used in the treatment of kaphaja (6.27–29), pittaaja (6.30–32),<sup>179</sup> vātaaja (6.33–34), kapha- and pittaaja prameha (6.35–39); various recipes and remedial measures (6.40–51);<sup>180</sup> the nature of vātobhānaprameha and its treatment (6.52);<sup>181</sup> the avoidance of causative factors during the treatment of prameha (6.53); the differential diagnosis of prameha and raktapitta (6.54); differential diagnosis when the urine is sweet, mucilaginous and resembling honey (6.55); special rules concerning the prognosis of prameha (6.56); incurability of prameha already present at birth, and of madhumeha inherited from one of the parents; the incurability of hereditary (kulaaja) diseases in general (6.57); the seven types of piḍakā appearing in patients suffering from prameha,<sup>182</sup> which are to be treated by surgeons (śalyavidhā) (6.58).

Chapter seven is devoted to kuṣṭha.

It begins with Ātreya's exposition of the subjects he is going to discuss in this chapter: the hetu (aetiology), dravya (i.e., doṣas and dūṣyas),<sup>183</sup> līṅga (symptomatology), āśraya (substrate) and praśamana (treatment) of the forms of kuṣṭha, disorders which in particular damage the skin as the seat of the tactile sense.<sup>184</sup>

The subjects dealt with are: the aetiology of kuṣṭha (7.4–8);<sup>185</sup> the seven and eleven forms of kuṣṭha are always brought about by all three doṣas, which corrupt the skin, blood, muscular tissue and watery element (ambu) (7.9–10);<sup>186</sup> the prodromes (7.11–12);<sup>187</sup> an enumeration of the eighteen varieties of kuṣṭha (7.13);<sup>188</sup> the description of the seven major varieties (mahākuṣṭha): kāpāla, audumbara, maṇḍala, ṛṣyajihva, puṇḍarīka, sidhma<sup>189</sup>, and kākaṇa (7.14–20);<sup>190</sup> the description of the eleven minor varieties (kṣudra kuṣṭha):<sup>191</sup> ekakuṣṭha,<sup>192</sup> carmākhyā,<sup>193</sup> kiṭima,<sup>194</sup> vaipādika,<sup>195</sup> alasaka,<sup>196</sup> dadrumaṇḍala,<sup>197</sup> carmadala,<sup>198</sup> pāmā,<sup>199</sup> visphoṭa,<sup>200</sup> śātārus,<sup>201</sup> and vicarcikā<sup>202</sup> (7.21–26); the doṣas preponderantly excited in these varieties: vāta in kāpāla, kapha in maṇḍala, pitta in audumbara, all three doṣas in kākaṇa, vāta and pitta in ṛṣyajihva, kapha and pitta in puṇḍarīka, vāta and kapha in sidhma kuṣṭha, vāta and kapha usually in carmākhyā, ekakuṣṭha, kiṭima, vipādika and alasaka, pitta and kapha usually in pāmā, śātārus, visphoṭa, dadru and carmadala, kapha usually in

vicarcikā (7.27–30);<sup>203</sup> all the varieties of kuṣṭha are, however, essentially brought about by the three doṣas; their relative strength (balābala) should be ascertained before beginning treatment; the predominant doṣa is to be counteracted first, the secondary one (anubandha) subsequently (7.31–32); the doṣas can be determined from the type of kuṣṭha present and the other way round (7.33); the signs which are characteristic for each doṣa in cases of kuṣṭha are enumerated (7.34–36);<sup>204</sup> a physician should refuse treating a patient presenting all the symptoms; cases of kuṣṭha in which one doṣa predominates or a combination of vāta and kapha are not difficult to cure, in contrast with cases with a predominance of kapha and pitta or vāta and pitta (7.37–38).<sup>205</sup>

The remaining part of the chapter is largely devoted to the treatment of kuṣṭha<sup>206</sup> (7.39–161).<sup>207</sup>

Recipes against kuṣṭha which are provided with a name are: mustādicūrṇa (7.65–67),<sup>208</sup> madhvāsava (7.73–75),<sup>209</sup> kanakabindvariṣṭa (7.76–79), śvetakaravī-rādyataila (7.105),<sup>210</sup> śvetakaravīrapallavādyataila (7.106–107), tiktekṣvākvāditaila (7.108–110),<sup>211</sup> kanakakṣīrītaila (7.111–116),<sup>212</sup> khadiraghṛta, nimbaghṛta, dārvī-ghṛta and paṭolaghṛta (7.135), tikṣaṭpalakaghṛta (7.140–143),<sup>213</sup> mahātiktakaghṛta (7.144–150),<sup>214</sup> and mahākhadiraghṛta (7.152–156).<sup>215</sup>

The last part of the chapter is concerned with the disease called kilāsa,<sup>216</sup> which is related to kuṣṭha; it is usually brought about by the three doṣas; three varieties are distinguished: dāruṇa, aruṇa and śvitra, which are characterized by red, copper-coloured (aruṇa) and white spots respectively; these varieties have their seat in blood, muscular tissue and fatty tissue respectively; their degree of severity corresponds with the order in which they are mentioned; the curable and incurable types of śvitra are described; bad acts in this life and in previous existences, as well as the intake of incompatible foods, are said to cause kilāsa (7.173–177);<sup>217</sup> the treatment of śvitra<sup>218</sup> precedes its description (7.162–172).<sup>219</sup>

Chapter eight, on rājayakṣman,<sup>220</sup> deals with the following subjects: the mythic origin of yakṣman,<sup>221</sup> which befell the moon-god (Indu, Candra, Candramas, Śaśin, Soma), due to his attachment to Rohiṇī,<sup>222</sup> one of the twenty-eight daughters of Prajāpati, and his neglect of the other ones; Prajāpati, full of wrath, afflicted him with the disease, from which he was cured by the Aśvins (8.3–10);<sup>223</sup> the names of the disease, which, ousted (from the heavenly world) by the Aśvins, came down to the world of human beings (8.11–12); the four causes of rājayakṣman: exertion beyond one's capacity, suppression of natural urges, wasting (kṣaya) (of bodily constituents), and irregular diet (viśamāśana) (8.13);<sup>224</sup> a description of the way in which these four causes give rise to one form of the disease each; the eleven symptoms of these four forms<sup>225</sup> (8.14–32);<sup>226</sup> the prodromes (8.33–38ab);<sup>227</sup> the way in which the symptoms arise; a series of eleven symptoms is mentioned,<sup>228</sup> followed by a series of six symptoms;<sup>229</sup> irrespective of the number of symptoms present, a strong patient should be accepted for treatment, a weak patient rejected (8.38cd–47);<sup>230</sup> pratiśyāya is described, one of the prodromes of (rāja)yakṣman (8.48–50);<sup>231</sup> coughing with expectoration of rasa (8.51), one of the symptoms of rājayakṣman (8.43); a type of fever occurring in the disease (8.52);<sup>232</sup> svarabhedha (impairment of the voice), one of the symptoms;<sup>233</sup> this disorder is of var-

ious types: caused by vāta, pitta, kapha, blood, the strain of coughing (kāsavega), and pīnasa (chronic rhinitis) (8.53–55); śūla (piercing pain) in the sides of the chest (pārśva) and in the head (śiras), which are symptoms<sup>234</sup> (8.56); spitting of blood, one of the eleven symptoms<sup>235</sup> (8.57); the way in which blood accumulates in the āmāśayā, gets excited (utkliṣṭa), and comes out by way of the throat (8.58); śvāsa (shortness of breath) and atisāra (diarrhoea), which are found among the symptoms<sup>236</sup> (8.59); aruci (loss of appetite), one of the symptoms;<sup>237</sup> five varieties are mentioned: caused by vāta, pitta, kapha, all three doṣas,<sup>238</sup> and disgust (8.60–61); chardi (vomiting),<sup>239</sup> a disorder brought about by arocaka (loss of appetite), the strain of coughing (kāsavega), excitement (utkleśa)<sup>240</sup> of the doṣas, and fear (8.62).

The remaining part of the chapter (8.63–189) is devoted to the treatment of rājayakṣman<sup>241</sup> and the disorders forming part of it.<sup>242</sup>

Meat dishes are thought to be useful in cases of rājayakṣman, particularly dishes prepared with the flesh of carnivorous animals. Because of the dislike these foods would inspire, they are to be served under the pretext that other animals are their source (8.149–162).<sup>243</sup>

Recipes provided with a name are: yavāṇiṣāḍava (8.141–144),<sup>244</sup> tālīśādyacūrṇa and -guṭikā (8.145–148).<sup>245</sup>

The last group of verses (8.179cd–189), preceding the summary (8.190–191), enumerates many practices, both medical and religious, which are beneficial to a patient suffering from rājayakṣman.<sup>246</sup>

Chapter nine, on unmāda (mental disorders),<sup>247</sup> deals with: the causative factors of this disease (9.4);<sup>248</sup> its pathogenesis (saṃprāpti) (9.5);<sup>249</sup> the symptoms (9.6–7);<sup>250</sup> the essential characteristics of the two types of unmāda: ni ja (endogenous) and āgantū (exogenous) (9.8ab);<sup>251</sup> the aetiology and symptomatology of unmāda caused by vāta (9.9–10),<sup>252</sup> pitta (9.11–12),<sup>253</sup> kapha (9.13–14),<sup>254</sup> saṃnipāta (9.15);<sup>255</sup> the āgantū type of unmāda is caused by possession (abhidharṣaṇa)<sup>256</sup> by gods, sages, gandharvas, etc., improper observance of niyama (mental discipline), vrata (vows),<sup>257</sup> etc., and improper conduct in previous existences (9.16);<sup>258</sup> the general characteristics of possession (bhūtotha unmāda) (9.17);<sup>259</sup> the way in which possession comes about: gods, etc., who are invisible, enter into a human being, without affecting his body, by the special power (prabhāva) of the properties characteristic of them, in a way similar to the production of a reflection (chāyā) in a mirror or the penetration of the rays of the sun into a sūryakānta (sunstone) (9.18);<sup>260</sup> the characteristics of possession by divine beings (deva),<sup>261</sup> sages (ṛṣi),<sup>262</sup> manes (pitar),<sup>263</sup> gandharvas,<sup>264</sup> yakṣas,<sup>265</sup> rākṣasas,<sup>266</sup> brahmārākṣasas,<sup>267</sup> piśācas (9.20);<sup>268</sup> the characteristics of persons liable to possession by a divine being, etc., and the days of the month on which divine beings, etc., preferably attack human beings (9.21);<sup>269</sup> signs of incurability (9.22); the treatment of unmāda caused by beings whose objective is rati or arcanā (9.23);<sup>270</sup> the treatment of ni ja and āgantū types of unmāda<sup>271</sup> (9.24–89ab);<sup>272</sup> the cure of unmāda through paying homage to Śiva<sup>273</sup> and his attendants, the Pramathas,<sup>274</sup> through sacrifices (bali, homa),<sup>275</sup> the wearing of herbs and amulets (oṣadhidhāraṇa and agadadhāraṇa), mantras, good conduct, penance (tapas),<sup>276</sup> gifts (pradāna), niyama, vrata, etc.

(9.89cd–94);<sup>277</sup> treatment of unmāḍa in the same way as apasmāra (9.95);<sup>278</sup> the prevention of unmāḍa (9.96); the signs indicating recovery (9.97).

Recipes provided with a name are: kalyāṇakaghṛta (9.33cd–42ab),<sup>279</sup> mahā-kalyāṇakaghṛta (9.42cd–44),<sup>280</sup> nāhāpāisācikaghṛta (9.45–48),<sup>281</sup> laśunādyaghṛta (9.49–51), and a second laśunādyaghṛta (9.52–56).<sup>282</sup>

Chapter ten, on apasmāra (epilepsy), deals with: a definition of this disease (10.3);<sup>283</sup> its aetiology (10.4–5) and pathogenesis (10.6–8ab);<sup>284</sup> the four types of apasmāra: caused by vāta, pitta, kapha and saṃpipāta; their symptoms<sup>285</sup> and degrees of curability; the intervals between the attacks (10.8cd–13); treatment of apasmāra (10.14–52);<sup>286</sup> apasmāra, in which an āgantū factor is secondarily (as an anubandha) involved,<sup>287</sup> added to the doṣic aetiology, should be treated in the same way as the āgantū type of unmāḍa (10.53); the aetiology, pathogenesis (saṃprāpti), symptomatology and therapy of the major disease (mahāgāda) called atattvābhiniveśa (10.54–63);<sup>288</sup> the treatment of chronic (cira-kārin) epilepsy which has acquired a firm footing (kṛtāspada) (10.64–65); precautions to be taken by a patient suffering from apasmāra (10.66).

Recipes provided with a name are: pañcagavyaghṛta (10.16–17)<sup>289</sup> and mahā-pañcagavyaghṛta (10.18–24).<sup>290</sup>

Chapter eleven is concerned with kṣataksīṇa (injury to the chest and its effects).<sup>291</sup>

The subjects dealt with are: the aetiology of this disease (11.4–8); its pathogenesis; kṣata (injury) of the chest leads to kṣaya (wasting), due to deficiency of śukra and ojas (11.9–12ab); the prodromes<sup>292</sup> and symptoms (11.12cd–13); the degrees of curability (11.14); treatment (11.15–95).

Recipes provided with a name are: elādiguṭikā (11.21–24),<sup>293</sup> amṛtaprāśaghṛta (11.35–43),<sup>294</sup> śvadamṣṭrādighṛta (11.44–47), five varieties of sarpiṅguḍa (11.50–55, 56–61, 62–65, 66–69, 70–77),<sup>295</sup> saindhavādicūṣṇa (11.85–87), and śāḍava (11.88–90).

Chapter twelve is about śvayathu (swelling).<sup>296</sup>

It deals with the following subjects: the classification of the types of this disorder: caused by vāta, pitta and kapha, nija and anija (= āgantū), localized (ekāṅga) and generalized (sarvaja)<sup>297</sup> (12.4);<sup>298</sup> the aetiology of the nija and āgantū types (12.5–7ab);<sup>299</sup> three varieties of the nija and āgantū types according to their seat: the whole body, half of it, or part of it (12.7cd) and the saṃprāpti of śvayathu (12.8); śvayathu occurring in the upper (ūrdhvaga), lower (adhoga) and middle part (madhyaga) of the body, śvayathu of the whole body (sarvāṅga), and localized forms, called after the part affected (12.9); the prodromes (12.10ab); all varieties of śvayathu are caused by the three concerted doṣas, but they are designated after the predominant doṣa and treated accordingly (12.10cd); the symptoms of śvayathu in general (12.11); the symptoms of śvayathu with a predominance of vāta (12.12), pitta (12.13) and kapha (12.14);<sup>300</sup> six fatal complications (12.15);<sup>301</sup> signs indicating curability (12.16ab); the treatment of śvayathu<sup>302</sup> (12.16cd–73).<sup>303</sup>

Recipes provided with a name are: *gaṇḍīrādyariṣṭa* (12.29–31),<sup>304</sup> *aṣṭaśatāriṣṭa* (12.32–33), *puṇarnavādyariṣṭa* (12.34–38),<sup>305</sup> *triphalādyariṣṭa* (12.39–40), *kṣāra-guḍikā* (12.43–46),<sup>306</sup> *śilājatuprayoga* (12.49), *kāṃsaharītakī* (12.50–52),<sup>307</sup> and *citrakaghrta* (12.58–59).<sup>308</sup>

Some localized varieties of *śvayathu* are described; *śīraḥśoṭha* (12.75ab);<sup>309</sup> *śālūka* of the throat (12.75cd);<sup>310</sup> *biḍālikā* (12.76);<sup>311</sup> *tāluvidradhi* (12.77ab);<sup>312</sup> *upajihvikā*<sup>313</sup> and *adhijihvikā*<sup>314</sup> (12.77cd); *upakuṣa* (12.78ab);<sup>315</sup> *dantavidradhi* (12.78cd);<sup>316</sup> *galagaṇḍa*<sup>317</sup> and *gaṇḍamālā*;<sup>318</sup> curable and incurable forms of these disorders, and their treatment (12.79–80);<sup>319</sup> *granthi* and its treatment (12.81–86);<sup>320</sup> *arbuda*, to be treated in the same way as *granthi* (12.87);<sup>321</sup> *alajī* (12.88ab);<sup>322</sup> *akṣata*, located at the junction of skin and nails (*carmanakhāntara*), caused by corruption of muscular tissue and blood (12.88cd);<sup>323</sup> *vidārikā* (12.89a-c);<sup>324</sup> the treatment of *alajī*, *akṣata* and *vidārikā* (12.89d–90ab); *visphoṭaka* (12.90cd);<sup>325</sup> *kakṣā* (12.91ab);<sup>326</sup> various other *piḍakās*, caused by *pitta* (12.91cd);<sup>327</sup> *romāntikā* (12.92);<sup>328</sup> *masūrikā* (12.93ab);<sup>329</sup> the treatment of *visphoṭaka*, *kakṣā*, *romāntikā* and *masūrikā*, which is similar to the treatment of *vīsarpa* and *kuṣṭha* (12.93cd);<sup>330</sup> *bradhna*, a disorder in which the intestine repeatedly comes out and enters the scrotum;<sup>331</sup> it is caused by each of the three *doṣas*, which present their characteristic signs; a similar swelling is brought about by urine<sup>332</sup> and *medas* (fatty tissue); *bradhna* is to be treated on conservative lines or by means of surgery (12.94–95);<sup>333</sup> *bhagandara*<sup>334</sup> and its treatment by means of conservative measures or surgery<sup>335</sup> (12.96–97); *ślīpada*<sup>336</sup> and its treatment<sup>337</sup> (12.98);<sup>338</sup> *jālakagardabha* and its treatment (12.99–100).<sup>339</sup>

The chapter ends with guidelines for the treatment of other local swellings (12.101); *vāta*, in combination with blood, is the agent in red swellings caused by a trauma (*abhighāta*); their treatment consists of measures prescribed against *vīsarpa* and disorders arising from *vāta* in combination with blood; swellings caused by poisonous substances should be counteracted through antitoxic measures (12.102).

Chapter thirteen, devoted to *udara*, begins with a number of questions on this disease, put to (Ātreya) *Punarvasu*, dwelling on mount *Kailāsa*, by his pupil *Agniveśa* (13.3–8). *Punarvasu* answers these questions.

The chapter describes the pathogenesis of *udara* (13.9–11); the aetiology (13.12–15);<sup>340</sup> the prodromes (13.16–19);<sup>341</sup> pathogenesis again (13.20);<sup>342</sup> the general symptoms of *udara* (13.21);<sup>343</sup> the eight types of *udara*: by each of the three *doṣas* and all three together (*saṃnipāta*), *phīhodara*, *baddhodara*, *kṣatodara*, and *udakodara* (13.22);<sup>344</sup> the aetiology, pathogenesis and symptomatology of *vātodara* (13.23–26);<sup>345</sup> *pittodara* (13.26–28);<sup>346</sup> *kaphodara* (13.29–31);<sup>347</sup> *saṃnipātodara* (13.32–34);<sup>348</sup> *phīhodara* (splenomegalia)<sup>349</sup> and a similar disorder affecting the liver (*yakṛt*)<sup>350</sup> (13.35–38); *baddhagudodara*<sup>351</sup> (13.39–41);<sup>352</sup> *chidrodara*,<sup>353</sup> which may develop into *udakodara*<sup>354</sup> (13.42–44); *udakodara* (ascites, i.e. dropsy) (13.45–47);<sup>355</sup> the way in which *udakodara* develops, its two stages<sup>356</sup> and their symptoms (13.48); complications (*upadrava*), indicating incurability (13.49);<sup>357</sup> *vātodara*, *pittodara*, *kaphodara*, *phīhodara*, *saṃnipātodara* and *udakodara* are in this order of increasing severity; *baddhagudodara* usually becomes incurable after a fortnight; *udakodara* in its

jātodaka stage and chidrāntrodara<sup>358</sup> are generally incurable right from the beginning (13.50–51);<sup>359</sup> signs indicating incurability and a fatal outcome (13.52–53); the cure of all types of udara is generally very difficult (kṛcchratama), but, under a number of specified conditions, the efforts at treatment may be successful (13.54);<sup>360</sup> the symptoms of the type of udara called ajātodaka (13.55–58); the treatment of the various types of udara (13.59–95ab)<sup>361</sup> and udara in general<sup>362</sup> (13.95cd–146ab);<sup>363</sup> treatment after the elimination of the doṣas (13.146cd–175ab);<sup>364</sup> treatment of refractory cases of udara with snake venom (13.175cd–184ab);<sup>365</sup> surgical treatment (13.184cd–188); draining of the fluid accumulated in the abdominal cavity by means of a trocar (nāḍī), applicable in all types of udara which have reached the jātodaka stage (13.189–190); treatment subsequent on draining (13.191–193ab); after-treatment in general (13.193cd–194).<sup>366</sup>

Recipes provided with a name are: paṭolādyacūrṇa (13.119cd–124ab),<sup>367</sup> nārāyaṇacūrṇa (13.124cd–133ab), hapuṣādyacūrṇa (13.133cd–137ab), nīlīnādyacūrṇa (13.137cd–138ab), and snuḥīkṣīraghrta (13.138cd–140).<sup>368</sup>

Chapter fourteen, on arśas (haemorrhoids),<sup>369</sup> begins again with Agniśeṣa's questionning Punarvasu and the topics to be discussed: the aetiology (prakopahetu), shapes (saṃsthāna), location (sthāna), signs (līṅga), treatment, and degrees of curability of haemorrhoids (14.3–4).

The subjects dealt with are: the classification of haemorrhoids into those present at birth (sahaja) and those developing at a later time (uttarakālaja); the substrate (āyatana) of those present at birth is the damaged (upatapta) bīja,<sup>370</sup> responsible for the development of the ano-rectal folds (gudavali); damage to the bīja is in this case, as in all sahaja disorders, caused by faulty behaviour (apacāra) of the parents and transgressions during a previous existence; haemorrhoids are defined as a disorder characterized by an excess of muscular tissue (adhimāṃsavikāra) (14.5); the site (kṣetra) of all haemorrhoids is composed of the three ano-rectal folds (gudavali),<sup>371</sup> which occupy a space (avakāṣa) measuring five fingers (aṅgula) and a half<sup>372</sup> and divide this space into three parts; some are of the opinion that growths called arśas are also found on the penis (śīśna), the female genitals (apathyapatha), in the pharynx (gala), on the palate, in the oral cavity (mukha), nose and ears, on the eyelids and the skin; these also consist of an excess of muscular tissue (adhimāṃsa), but only those arising from the ano-rectal folds are regarded as haemorrhoids in the present treatise; the substratum (adhiṣṭhāna) of all haemorrhoids consists of fatty tissue, muscular tissue and skin (14.6);<sup>373</sup> the shapes and colours of sahaja haemorrhoids (14.7); their symptoms (14.8);<sup>374</sup> the aetiology and pathogenesis of acquired haemorrhoids (14.9); their shapes (14.10); the symptoms of haemorrhoids brought about by vāta (4.11) and their aetiology (14.12–13);<sup>375</sup> the symptoms and aetiology of haemorrhoids brought about by pitta (14.14 and 15–16), kapha (14.17 and 18–19), and a combination of two or three doṣas (14.20);<sup>376</sup> the prodromes (14.21–22);<sup>377</sup> haemorrhoids are always caused by all three doṣas, but designated after the predominant one (14.23); the excitation of the five kinds of vāta, of pitta, kapha, and of the three ano-rectal folds collectively leads to the appearance of haemorrhoids, a painful disorder, usually difficult to cure (14.24–25); the degrees

of curability and their determining factors (14.26–32);<sup>378</sup> treatment by means of excision (*kartana*), caustics (*kṣāra*) or cauterization (*dāha*), to be performed by experienced specialists, on account of the risks involved; the complications that may arise from these treatments (*śastraḥśārāgnivibhrama*); the hazardous character of the mentioned methods of treatment is the reason for describing easier ones, less painful and perilous (14.33–37);<sup>379</sup> the classification of haemorrhoids into two categories: dry (*śuṣka*), with a predominance of *vāta* and *kapha*, and discharging (*prasrāvin*), with a predominance of blood and *pitta* (14.38); treatment of haemorrhoids (14.39–169);<sup>380</sup> bleeding haemorrhoids, in which *kapha* or *vāta* is secondarily involved (as an *anubandha*) (14.170); the treatment of bleeding haemorrhoids (14.171–242);<sup>381</sup> the general treatment of haemorrhoids (14.243 and 246–248); the interdependence of haemorrhoids, diarrhoea and *grahaṇī* (14.244–245).

Recipes provided with a name are: *takrāriṣṭa* (14.72–75),<sup>382</sup> *abhayāriṣṭa* (14.138–143),<sup>383</sup> *dantyarīṣṭa* (14.144–147),<sup>384</sup> two varieties of *phalāriṣṭa* (14.148–152 and 153–157), *kanakāriṣṭa* (14.158–168),<sup>385</sup> *kuṭajādirasakriyā* (14.188–192), *picchābasti* (14.224–229), *hrīverādhigṛta* (14.230–233),<sup>386</sup> and *sunīṣaṇṇakacāṅgerīghṛta* (14.234–242).<sup>387</sup>

Chapter fifteen<sup>388</sup> deals with the disorder called *grahaṇīdoṣa*.<sup>389</sup>

The chapter begins with stressing the importance of the bodily fires (*agni*) (15.4–5). The *prāṇa* carries the food to the *koṣṭha*, where it is disintegrated (*bhinnasamghāta*) by fluids and softened by fatty substances, before being acted upon by the digestive fire,<sup>390</sup> which is fanned (*avadhūta*) by the *samāna*; the fire, situated below the *āmāśaya*, cooks the food, which is separated into *rasa* and waste matter (*mala*) (15.6–8). The food, which has six tastes, is subjected to the process called *prapāka*; three stages are described; in the first stage the food becomes predominantly sweet and frothy (*phenabhūta*) by *kapha*; it becomes acid when being half-digested (*vidagdha*), descends (from the *āmāśaya*), and is acted upon by clear (*accha*) bile; having reached the *pakvāśaya* and being desiccated by the fire, it is converted into lumps (*paripīḍita*) and becomes pungent due to the activity of *vāta* (15.9–11).<sup>391</sup>

The senses and sense organs are nourished by the food (15.12). The fires of the five *mahābhūtas* digest the fractions of the food possessing the qualities of these *bhūtas* (15.13).<sup>392</sup> The products of this digestion nourish the bodily constituents possessing the same qualities (15.14).<sup>393</sup> The seven bodily elements (*dhātu*), acted upon by their respective fires, are converted into a pure portion (*prasāda*) and a waste product (*kiṭṭa*) (15.15).<sup>394</sup>

The formation of the bodily elements takes place in the following order, each element being transformed into the subsequent one: *rasa*, *rakta*, *māṃsa*, *medas*, *asthi*, *majjā*, *śukra*; a foetus arises from the pure portion of *śukra* (15.16).<sup>395</sup>

These elements nourish in their turn other bodily constituents:<sup>396</sup> *rasa* nourishes the breastmilk (*stanya*) and the blood (*rakta*) in women (that is transformed into the menstrual discharge), blood (*asṛj*) nourishes the *kaṇḍarās* and *sirās*, *māṃsa* nourishes *vasā* and the six layers of the skin, *medas* nourishes the *snāyus* and *sandhis* (15.17).

The waste products (*kiṭṭa*, *mala*) of the food are faeces and urine; the waste product

of rakta is bile (pitta); the waste products of māṃsa consist of the impurities of the bodily orifices; the waste product of medas is sweat (sveda), of asthi the hairs of head (keśa) and body (loman), of majjā the fatty substance (sneha) of eyes, faeces and skin; these substances support (upasaṃstambha) each other and maintain the body (15.18–19).

The intake of aphrodisiacs (vṛṣya) accelerates the processes described. Some are of the opinion that the process of conversion of the bodily elements (parivartana) is completed in a period of six days; however, the transformational processes (parivṛtti) take place continually in a cyclic way (cakra/āt) (15.20–21).<sup>397</sup>

On the request of his pupil, Ātreya explains the changes of the properties of the bodily elements in the course of the transformational processes (15.22–35).<sup>398</sup>

The vyāna disperses the element rasa continually throughout the body; a local morbid alteration (vikṛti) appears if this moving about of rasa is blocked at a particular place due to pathological changes of channels (khavaiguṇya); the doṣas are subsequently excited at that very place (15.36–38ab).

The digestive fire is the chief one (adhipa) among all the bodily fires (paktar), which are dependent on it. For this reason it should be carefully protected, since, otherwise, grahaṇīdoṣa may develop (15.38cd–41).

The aetiology of disorders of the digestive fire (agnidoṣa) is described,<sup>399</sup> followed by their symptoms, in combination with excitation of one of the three doṣas (15.42–49).

The actions on the dhātus of a normal digestive fire and of a disordered fire are described (15.50–51ab).

A weak digestive fire leads to incomplete digestion (vidāha) of the ingested food, which then moves upwards or downwards; the disorder is called grahaṇīgata if it moves downwards. The symptoms are described, followed by the prodromes (15.51cd–55).<sup>400</sup>

The grahaṇī and its functions are dealt with (15.56–57).<sup>401</sup>

The aetiology and symptomatology of grahaṇīdoṣa caused by vāta, pitta, kapha and saṃnipāta are discussed.<sup>402</sup> The three disorders of the digestive fire mentioned in the rogāṃka chapter<sup>403</sup> are included under the heading of grahaṇīdoṣa (15.58–72).

The remaining part of the chapter is devoted to the treatment of grahaṇīdoṣa<sup>404</sup> and agnidoṣa (15.73–243).

Recipes provided with a name are: daśyūlādyaghrta (15.82–86),<sup>405</sup> tryūṣaṇādyaghrta (15.87),<sup>406</sup> pañcānūlādyaghrta and -cūrṇa (15.88–93), citrakādyaguṇikā (15.96–97), maricādyacūrṇa (15.98–110),<sup>407</sup> takrāṛiṣṭa (15.117cd–121),<sup>408</sup> canda-nādyaghrta (15.125–128), nāgarādyacūrṇa (15.129–131),<sup>409</sup> bhūnimbādyacūrṇa (15.132–133), kirātādyacūrṇa (15.134–143),<sup>410</sup> madhūkāsava (15.146–149),<sup>411</sup> durālabhāsava (15.152–155),<sup>412</sup> mūlāsava (15.156–159), piṇḍāsava (15.160–162), madhvariṣṭa (15.163–167), śaṭpalaghrta (15.168–170),<sup>413</sup> kṣāraghrta (15.171–172),<sup>414</sup> and several kinds of kṣāra (15.177–193).

Chapter sixteen is concerned with pāṇḍuroga (morbid pallor and related disorders).<sup>415</sup>

Subjects dealt with are: the five types of pāṇḍuroga, caused respectively by vāta, pitta, kapha, saṃnipāta and the eating of earth (mṛdabhakṣaṇa)<sup>416</sup> (16.3);<sup>417</sup>



the saṃprāpti and aetiology (16.4–11);<sup>418</sup> the prodromes (16.12b–d)<sup>419</sup> and general symptoms (16.13–16); the symptoms of pāṇḍuroga caused by vāta (16.17–18),<sup>420</sup> pitta (16.19–22),<sup>421</sup> kapha (16.23–25),<sup>422</sup> saṃnipāta (16.26),<sup>423</sup> and the eating of earth (16.27–30); signs indicating incurability (16.31–33); the aetiology and symptomatology of kāmālā (jaundice)<sup>424</sup> and kumbhakāmālā, due to pitta (16.34–37ab);<sup>425</sup> signs of incurability (16.37cd–39ab);<sup>426</sup> treatment of the diseases described<sup>427</sup> (16.39cd–132ab);<sup>428</sup> the symptoms of halīmaka, due to vāta and pitta (16.132cd–134ab);<sup>429</sup> its treatment (16.134cd–138ab).<sup>430</sup>

Recipes provided with a name are: dāḍimādyaghṛta (16.44–46),<sup>431</sup> kaṭukādyaghṛta (16.47–49),<sup>432</sup> pathyāghṛta (16.50), dantīghṛta (16.51), drākṣāghṛta (16.52),<sup>433</sup> haridrādighṛta (16.53),<sup>434</sup> navāyasacūrṇa (16.70–71),<sup>435</sup> maṇḍūravatāka (16.73–77), yogarāja (16.80cd–87ab), śilājatuvatāka (16.87cd–93ab), punarnavamāṇḍūra (16.93cd–96),<sup>436</sup> dhātryavaleha (16.100–102ab),<sup>437</sup> a second maṇḍūravatāka (16.102cd–105ab), gauḍāriṣṭa (16.105cd–106ab), bījākāriṣṭa (16.106cd–111ab),<sup>438</sup> and dhātryariṣṭa (16.111cd–114ab).<sup>439</sup>

Substances containing iron or an iron compound are frequently prescribed in this chapter,<sup>440</sup> as well as a number of minerals.<sup>441</sup>

Chapter seventeen contains an exposition on hikkā (hiccup) and śvāsa (shortness of breath).

The chapter begins with Agniveśa's questions about diseases caused by three doṣas and with three factors leading to excitement (prakopaṇa);<sup>442</sup> these diseases are difficult to overcome (durjaya) (17.3–4).

Ātreya answers that hikkā and śvāsa are conspicuous among fatal diseases and often appear in the last stage of various other disorders (17.5–7).

Hikkā and śvāsa show a predominance of vāta and kapha, arise from the seat of pitta,<sup>443</sup> and desiccate the heart and the dhātus, which makes them very difficult to overcome, leading to death if not properly managed (17.8–9).

Hikkā and śvāsa are both of five types (17.10ab).

Ātreya gives an exposition on their common aetiology (17.10cd–16)<sup>444</sup> and saṃprāpti (17.17–18ab),<sup>445</sup> the prodromes of hikkā and those of śvāsa (17.18cd–20),<sup>446</sup> and the specific saṃprāpti of hikkā (17.21).

The five types of hikkā are described: mahāhikkā (17.22–26),<sup>447</sup> gambhīrā hikkā (17.27–30),<sup>448</sup> vyapetā hikkā (17.31–33),<sup>449</sup> kṣudrahikkā (17.34–37),<sup>450</sup> and annajā hikkā (17.38–41).<sup>451</sup> The characteristics of patients who are liable to die from hikkā are dealt with (17.42–43ab).<sup>452</sup> The type of hikkā called yamikā (having double bouts)<sup>453</sup> is described, followed by the degrees of curability of hikkā (17.43cd–44).<sup>454</sup>

The specific saṃprāpti of śvāsa<sup>455</sup> is dealt with (17.45), and the five types of this disease are described: mahāśvāsa (17.46–48),<sup>456</sup> ūrdhvaśvāsa (17.49–51),<sup>457</sup> chinnaśvāsa (17.52–54),<sup>458</sup> tamaka (17.55–62),<sup>459</sup> pratamaka,<sup>460</sup> and saṃtamaka (17.63–64).<sup>461</sup> Kṣudraśvāsa (a minor degree of śvāsa) is described as a disorder brought about by dry articles of food and exertion; it is curable in strong patients. The other types of śvāsa are curable if not fully manifest (avyaktalakṣaṇa) (17.65–68ab).<sup>462</sup> The fatal cases should be given up, the curable and palliable ones should be treated as

quickly / as possible (17.68cd–69).

The remaining part of the chapter (17.70–151)<sup>463</sup> is devoted to treatment<sup>464</sup> (17.68–150).<sup>465</sup>

Recipes provided with a name are: muktādyacūrṇa (17.125–128), tejovatyādhigṛṭa (17.141cd–144),<sup>466</sup> and manaḥśīlādhigṛṭa (17.145–146).

Chapter eighteen is concerned with kāsa (cough).<sup>467</sup>

Its subjects are: the five types of kāsa: three types caused by the doṣas, one caused by a trauma (kṣāta); and one caused by wasting (kṣaya);<sup>468</sup> they lead to wasting when they are progressive (18.3–4); the prodromes (18.5);<sup>469</sup> the saṃprāpti (18.6–8);<sup>470</sup> the causes of the specific characteristics (18.9); the aetiology and symptomatology of kāsa brought about by vāta (18.10–13),<sup>471</sup> pitta (18.14–16),<sup>472</sup> kapha (18.17–19),<sup>473</sup> injury to the chest (urahkṣāta) (18.20–23),<sup>474</sup> and wasting (18.24–29a);<sup>475</sup> kāsa due to wasting is fatal in wasted (kṣīṇa) patients, but curable in strong ones; kāsa of traumatic origin is palliable in strong patients; both types are sometimes curable if they are of recent origin and correctly treated; kāsa appearing in old age (jarākāsa) is palliable (18.29–30).<sup>476</sup>

The remaining part of the chapter is devoted to treatment<sup>477</sup> (18.31–190).<sup>478</sup>

Recipes provided with a name are: kaṇṭakārighṛta (18.35),<sup>479</sup> pippalyādhigṛṭa (18.36–38),<sup>480</sup> tryuṣaṇādyaghṛta (18.39–42),<sup>481</sup> rāsnāghṛta (18.43–46),<sup>482</sup> citrakādīleha (18.53–56), agastyaharītakī (18.57–62),<sup>483</sup> daśamūlādhigṛṭa (18.123–124),<sup>484</sup> a second kaṇṭakārighṛta (18.125–128), kulatthādhigṛṭa (18.129),<sup>485</sup> dvipaṇcamūlādhigṛṭa (18.158–160), guḍūcyādhigṛṭa (18.161–162),<sup>486</sup> harītakīleha (18.168–169), and padmakādīleha (18.174–175).<sup>487</sup>

Chapter nineteen gives an exposition on atisāra (diarrhoea).<sup>488</sup>

It begins with a story on the first appearance<sup>489</sup> of this disease. During the first age of the world (ādikālā) the sacrificial animals were not killed, but only taken hold of. Later, after Dakṣa's sacrifice,<sup>490</sup> the animals began to be consecrated (prokṣaṇa)<sup>491</sup> with their own consent (abhyānujñāna), in the sacrificial rites (kratu) of the sons of (Vaivasvata) Manu, called Nariṣyant, Nābhāga, Ikṣvāku, Nṛga, Śaryāti,<sup>492</sup> etc. Still later, Iṣṣadhra<sup>493</sup> started sacrificing cattle, because other animals were not available for his prolonged soma ritual (dīrghasattra).<sup>494</sup> This made all creatures grief-stricken, and, when the meat of these cattle was consumed, all creatures began, because of their mental affliction and, consequently, by an impaired digestive fire, to suffer from diarrhoea, due to the properties of this inauspicious (aśasta) food (19.4).

The chapter proceeds with: the description of the aetiology<sup>495</sup> and symptomatology of atisāra caused by vāta (19.5), pitta (19.6), kapha (19.7);<sup>496</sup> two saṃnipāta types of atisāra<sup>497</sup>; degrees of curability<sup>498</sup> (19.8–10); atisāra due to fear (bhaya)<sup>499</sup> and grief (śoka)<sup>500</sup> the last two types, of a mental and exogenous nature, present the same symptoms as atisāra caused by vāta (19.11).<sup>501</sup>

The remaining part of the chapter is devoted to the treatment of the curable kinds of the six types of atisāra<sup>502</sup> (19.12–122).<sup>503</sup> A recipe called cāṅgerighṛta is mentioned (19.43).<sup>504</sup>

The section on treatment refers to *afīsāra* accompanied by partially digested food (*vidagdāhāramūrchita*) or undigested matter (*āmātīsāra*) (19.14–15), and a form devoid of *āma* (*nirāma*; 19.42). Inadvertent treatment of *āmātīsāra* may lead to the disorder called *daṇḍakālasaka* (19.16). The disease called *pravāhikā* is mentioned a number of times without being characterized (19.30, 34).<sup>505</sup> *Raktātīsāra* (bloody diarrhoea) is regarded as a severe form of *pittātīsāra* (19.69–70);<sup>506</sup> *valīpāka* (inflammation of the ano-rectal folds) may develop in the course of *pittātīsāra* (19.101cd–102ab).

A prolapse of the anus is more than once mentioned as a sequel of diarrhoea (19.42: *gudaniḥsarapa*; 19.43: *gudabhramśa*; 19.46: *bhraṣṭaguda*).<sup>507</sup>

Chapter twenty, on *chardi* (vomiting), deals with: the five types of this disease: caused by each of the three *doṣas* separately, by the three *doṣas* jointly, and by contact with disgusting things (*dviṣṭārthayoga*) (20.6ab); the prodromes (20.6cd); the aetiology and symptomatology of *chardi* brought about by *vāta* (20.7–9), *pitta* (20.10–11), *kapha* (20.12–13), and all three *doṣas* together (20.14–15); faecal vomiting as a fatal disorder (20.16–17); vomiting caused by disgusting objects (20.18);<sup>508</sup> incurable and curable types of vomiting (20.19);<sup>509</sup> treatment (20.20–48).<sup>510</sup>

Chapter twenty-one, on *visarpa* (erysipelas),<sup>511</sup> begins with *Agniveśa*'s questions on this disease; *Ātreya*, roaming about in the region of *Kailāsa*, answers them (21.3–10).

The subjects are: the name of the disease, *visarpa* or *parisarpa*, called thus on account of its spreading character (21.11);<sup>512</sup> the seven types of *visarpa*, a disease having seven kinds of pathogenic elements (*dhātu*): caused by *vāta*, *pitta*, *kapha*, *saṃnipāta*, and the three combinations of two *doṣas*; *āgneyavisarpa* is brought about by *vāta* and *pitta*, *granthivisarpa* by *kapha* and *vāta*, *kardamakavisarpa* by *pitta* and *kapha* (21.12–14); seven pathogenic elements (*dhātu*) are responsible for the production (*samutpatti*) of *visarpa*: four corruptible bodily elements (*dūṣya*), namely *rakta* (blood), *lasikā* (serous fluid), *tvac* (the layers of the skin) and *māṃsa* (muscular tissue), together with the three *doṣas* (21.15);<sup>513</sup> the common aetiology of *visarpa* (21.16–22); three kinds of *visarpa*: located externally (*bahiḥśrita*), internally (*antaḥśrita*) and both ways (*ubhayaśaṃśrita*); the severity increases in the mentioned order; the first kind is curable, the second is very difficult to cure, and the third incurable (21.23–24);<sup>514</sup> the symptoms of internally and externally located *visarpa* (21.25–27); the signs indicating a fatal outcome (21.28);<sup>515</sup> the aetiology and symptomatology of *visarpa* arising from *vāta* (21.29–30);<sup>516</sup> *pitta* (21.31–32);<sup>517</sup> and *kapha* (21.33–34);<sup>518</sup> the aetiology and symptomatology of the incurable *agnivisarpa*, caused by *vāta* and *pitta* (21.35–36), the incurable *kardamakavisarpa*, caused by *kapha* and *pitta* (21.37–38), and the incurable *granthivisarpa*, caused by *kapha* and *vāta* (21.39); the definition of *upadrava* (complication) as a disease (*roga*) in itself, based on (another) disease, appearing in a later stage of that (primary) disease; the (primary) disease (*vyādhi*) is the main one (*pradhāna*), the *upadrava* shares its properties (*guṇabhūta*); the *upadrava* is usually alleviated together with the primary disease; an *upadrava* should be quickly overcome, because it afflicts a patient the more due to its appearance in a later stage of an already existing disease (21.40);<sup>519</sup> the incurability of *saṃnipātavisarpa* (21.41);<sup>520</sup> *visarpa*,

caused by vāta, pitta or kapha is curable; agni- and kardamavisarpa are under certain conditions amenable to treatment; granthivisarpa may be accepted for treatment if it does not present complications; samnipātavisarpa is incurable (21.42);<sup>521</sup> treatment (21.43–143);<sup>522</sup> the treatment of granthivisarpa may also be applied to galagaṇḍa caused by kapha; the treatment of galagaṇḍa arising from vāta and kapha is also succinctly described (21.139–140);<sup>523</sup> visarpa is said to be a disease that is always associated with raktapitta (21.142).

Recipes mentioned in the section on treatment are mahātiktaghṛta (21.62)<sup>524</sup> and trāyamānāghṛta (21.63).<sup>525</sup>

Chapter twenty-two, on tṛṣṇā (morbid thirst), deals with: the aetiology and general pathogenesis (samprāpti) of this disorder (22.4–7);<sup>526</sup> the prodromes<sup>527</sup> and the general characteristics<sup>528</sup> (svalakṣaṇa)<sup>529</sup> of all types of tṛṣṇā (22.8); symptoms of tṛṣṇā (22.9–10);<sup>530</sup> the pathogenesis and symptoms of tṛṣṇā brought about by vāta (22.11–12),<sup>531</sup> pitta (22.13–14),<sup>532</sup> āmapitta (22.15),<sup>533</sup> decrease of rasa (rasakṣaya) (22.16),<sup>534</sup> and as a complication (upasarga)<sup>535</sup> of jvara (fever), prameha (urinary disorders), wasting (kṣaya), śoṣa (desiccation), śvāsa (shortness of breath) and other diseases (22.17);<sup>536</sup> conditions leading to a fatal outcome (22.18);<sup>537</sup> varieties of tṛṣṇā, included in those arising from vāta and pitta; these varieties occur owing to the intake of heavy articles of food, milk, and fatty substances, during the digestive process (vidāha), and due to the habitual use of alcoholic drinks (22.19–22);<sup>538</sup> tṛṣṇā occurring after taking a cold bath (22.23); the symptoms of all kinds of tṛṣṇā are caused by vāta, pitta and decrease (of fluid)<sup>539</sup> (22.24); treatment (22.25–62).<sup>540</sup>

Chapter twenty-three is concerned with poisonous substances (viṣa) and the treatment of poisoning.<sup>541</sup>

The subjects are: the first appearance (prāgutpatti) of poison during the churning of the ocean; it arose, prior to the amṛta, in human form, as a fierce-looking, resplendent being with four fangs, fair-haired, with fiery eyes; he was called Viṣa because the living beings became viṣaṇṇa (dejected) on seeing him (23.4–5);<sup>542</sup> Brahmā placed viṣa in two sources (yonī): mobile (i.e., animals; jaṅgama) and immobile (i.e., plants; sthāvara); it originates from water, is of two kinds, resembles fire, has eight stages of action (vega), ten properties, and twenty-four ways of treatment (upakrama) (23.6); being of a watery origin, it becomes fluid like guḍa and spreads during the rainy season; Agastya<sup>543</sup> harms it when the clouds have disappeared, as a result of which its potency (vīrya) becomes milder (manda) (23.7–8); a long series of fanged (daṁṣṭrin) animals, whose fangs are the source of jaṅgama poisons: sarpa (snake), kṛtā, indura, lūtā (spider), vṛścikā (scorpion), grhagodhikā, jālaukas (leech), matsya (fish), maṇḍūkā (frog), kaṇabha, kṛkaṇṭaka, śvan (dog), siṃha (lion), vyāghra (tiger), gomāyū (jackal), tarakṣu (hyena), nakula (ichneumon), etc. (23.9–10); the sthira (= sthāvara) poisons, deriving from the roots of plants: mustaka, pauṣkara, krauñca, vatsanābha, balāhaka, karkaṭa, kālakūṭa, karavīraka, pālaka, indrayudha, taila, meghaka, kuśapuspa, rohiṣa, puṇḍarīka, lāṅgalakṣī, añjanābhaka, saṃkoca, markāṭa, śṛṅgiṣa, hālāhala, etc. (23.11–13);<sup>544</sup> a third type of poisonous substance,

called gara, which results from a mixture of substances; it is not instantly lethal, because its activation (vipākīva) takes time (23.14);<sup>545</sup> the effects of poisons of animal and vegetable origin; animal poisons (jāṅgama, daṁṣṭrāviṣa) affect the lower, vegetable poisons (sthāvara, maulaviṣa) the lower part of the body, which makes the two types antagonistic (23.15–17); the signs of the eight stages of action (vega) in human beings;<sup>546</sup> these stages, four in number, as occurring in quadrupeds; the three stages occurring in birds<sup>547</sup> (23.18–23); the ten properties of poison: laghu (light), rūkṣa (dry), āśu (quickly acting), viśada (clear), vyavāyin (diffusive),<sup>548</sup> tīkṣṇa (sharp), vikāsin (relaxation promoting),<sup>549</sup> sūkṣma (subtle), uṣṇa (hot), of undefined taste (anirdeśyarasa) (23.24);<sup>550</sup> poison excites vāta by its dryness, pitta by its heat, blood by its subtlety, kapha by its undefined taste; it quickly pervades (anuvartate)<sup>551</sup> the annarasa (rasa derived from the food); due to its vyavāyin and āśu character, it quickly penetrates into the whole body; it damages the vital organs (marman) due to its sharpness and the prāṇa(s) because it is vikāsin; its lightness makes treatment difficult; it does not impede the movement of the doṣas (asaktaगतidoṣa) on account of its clearness (23.25–27);<sup>552</sup> the symptoms of poisoning in persons with a constitution dominated by vāta, pitta or kapha (23.28–30);<sup>553</sup> dūṣṭviṣa (a slowly acting poison) brings about corruption of the blood, aruṣ (ulcers), kiṭibha<sup>554</sup> and koṭha (an urticarial rash); it is fatal, because it corrupts each doṣa separately (23.31);<sup>555</sup> the fiery quality (tejas)<sup>556</sup> of poison makes the blood flow, which blocks the vessels (kha), leading to death; poison that is drunk stays in the heart after death, while the poison of a bite or sting remains at the site bitten or stung (23.31–32);<sup>557</sup> the signs of death by poisoning are described (23.33–34); the twenty-four ways of treatment: mantra,<sup>558</sup> ariṣṭā,<sup>559</sup> utkartana (excision), niṣpīḍana (compression), cūṣaṇa (suction),<sup>560</sup> agni (cauterization), pariṣeka (affusion),<sup>561</sup> avagāha (bathing), raktamokṣaṇa (blood-letting),<sup>562</sup> vamaṇa (emetics),<sup>563</sup> vireka (purgation),<sup>564</sup> upadhāna (the application of drugs on the incised scalp),<sup>565</sup> hṛdayāvaraṇa (protection of the heart),<sup>566</sup> añjana (collyrium),<sup>567</sup> nasya (earrhine), dhūma (inhalation of medicinal smoke), leha (linctus), auśadha (medicament), pradhamana (blowing drugs into the nose),<sup>568</sup> pratisāraṇa (local application),<sup>569</sup> prataviṣa (antidote), saṁjñāsaṁsthāpana (re-animation),<sup>570</sup> lepa (paste), and mṛtasamjīvana (resuscitation) (23.35–37); treatment by means of these methods (23.38–104).<sup>571</sup>

Recipes provided with a name are: mṛtasamjīvanāgāda (23.54–60),<sup>572</sup> gandha-hastyagāda (23.71–76),<sup>573</sup> mahāgandhahastyagāda (23.77–94),<sup>574</sup> and kṣārāgāda (23.101–104).<sup>575</sup>

The chapter proceeds with: the danger of poisoning to which a king is exposed;<sup>576</sup> the characteristics of a poisoner;<sup>577</sup> tests to detect poison in food<sup>578</sup>; the symptoms of poisons administered in various ways (23.105–122);<sup>579</sup> the three kinds of venomous snakes:<sup>580</sup> darvīkara, maṇḍalin and rājīmant, who cause excitement of vāta, pitta and kapha respectively; the darvīkara is hooded (phaṇin), the maṇḍalin has a coiled hood (maṇḍalāphaṇa), the rājīmant has a spotted and streaked skin;<sup>581</sup> their venom excites the mentioned doṣa by being dry and pungent, acid and hot, sweet and cold respectively; the characteristics of their bites are described (23.124–129);<sup>582</sup> the characteristics of snakes who are male, female<sup>583</sup> and neither male nor female are

enumerated, followed by the characteristics of persons who are bitten by these three kinds,<sup>584</sup> by a pregnant (garbhiṇī) snake,<sup>585</sup> and by one who has given birth (sūtā);<sup>586</sup> a four-footed snake, born from a godhā, is called a gaudheyaka and resembles a black snake (kṛṣṇasarpa);<sup>587</sup> several other crossbreeds (mīśra-jāti) are known;<sup>588</sup> the characteristics of serious (bhṛṣābādha) and less serious bites (23.130–135); the black snake when young, the gonasa<sup>589</sup> of advanced age, and the adult rājīmant are like āśīviṣa (23.136);<sup>590</sup> the four fangs of venomous snakes, their colours, the quantity of poison they contain (23.137–139); the two kinds of poisonous kīṭas,<sup>591</sup> arising from the faeces and urine of snakes: those containing dūṣiṣa (slowly acting poison) and those containing prāṇahara (deadly) poison; the characteristics of the bites of these kīṭas and the symptoms produced (23.140–143); the signs and symptoms of a bite by a dūṣiṣa spider (lūtā) and of spiders in general (23.144–146);<sup>592</sup> the signs and symptoms of bites and stings by a rat (ākhu, mūṣika),<sup>593</sup> lizard (kṛkalāsaka),<sup>594</sup> scorpion (vr̥ścika),<sup>595</sup> kaṇabha,<sup>596</sup> uccītiṅga,<sup>597</sup> frog or toad (maṇḍūka),<sup>598</sup> fish (matsya), leech (jalaukas),<sup>599</sup> gecko (gr̥hagodhikā),<sup>600</sup> centipede (śatapadī),<sup>601</sup> gnat (maśaka),<sup>602</sup> fly or bee (makṣikā),<sup>603</sup> and sthagika<sup>604</sup> (23.147–158); bites leading to death (23.159–161ab);<sup>605</sup> factors aggravating the effect of poison (23.162); snakes whose venom has a mild effect (23.163);<sup>606</sup> anger is the releasing factor of venom in snakes (23.164);<sup>607</sup> vāta predominates in the poison of uccītiṅga and scorpion, vāta and pitta in that of kīṭas, kapha in that of the kaṇabha. etc.; treatment should consist of the prescription of substances counteracting these doṣas (23.165–166); the symptoms produced by a poison in which respectively vāta, pitta or kapha predominates (23.167–169); treatment of the bites and stings mentioned (23.170–174);<sup>608</sup> the bite of a dog excites the three doṣas and corrupts the bodily elements; the symptoms of a dogbite;<sup>609</sup> the bites of other fierce animals (vyṣṭā); poisonous and non-poisonous bites (23.175–178); treatment of diverse kinds of poisoning<sup>610</sup> (23.179–249);<sup>611</sup> the section on treatment mentions a poisonous animal called viśvambhara (23.214);<sup>612</sup> the condition called śarikāviṣa, i.e., the anxiety of someone who thinks to have been bitten (by a snake), is described, as well as its treatment (23.221–223);<sup>613</sup> things wholesome and wholesome to victims of poisoning (23.224–218);<sup>614</sup> the symptoms of poisoning by quadrupeds and its treatment (23.229–232); garā, prepared and administered mixed with food by women afraid to lose the favour of their husband or lover, is also dealt with, followed by the treatment of the victim (23.233–240).<sup>615</sup>

The chapter ends with measures to be taken immediately after a bite (23.250–253)<sup>616</sup> and a concluding verse (23.254.)

Recipes with a name are pañcaśīrṣāgada (23.212–218)<sup>617</sup> and amṛtaghṛta (23.242cd–249).<sup>618</sup>

Chapter twenty-four is about madātyaya (alcoholism and its complications).<sup>619</sup>

Its subjects are: the eulogy of surā,<sup>620</sup> honoured by gods and sages, used as an oblation in the sautrāmaṇī ritual,<sup>621</sup> etc.; the advice to use it properly (24.3–10); the proper way in general of consuming alcoholic drinks (madya) (24.11–20);<sup>622</sup> special prescriptions<sup>623</sup> for persons with a vātika, paittikā or ślaismika constitution (24.21–23),<sup>624</sup> applicable to those who are wealthy or on the path to prosperity (24.24);

gaudika<sup>625</sup> and paṣṭika<sup>626</sup> drinks<sup>s</sup> are suitable to those with a vātika constitution, mārīvika<sup>627</sup> is suitable to a paṭtika, mādha<sup>628</sup> to a ślaismika constitution (24.25); the properties and actions of alcoholic drinks made from many different substances (24.26–28); alcoholic drinks, after reaching the heart, disturb the ten properties of ojas by their own ten qualities, thus causing mental disorder (24.29); the ten properties of alcoholic drinks are: laghu (light), uṣṇa (hot), tīkṣṇa (sharp), sūkṣma (subtle), amla (sour), vyavāyin (relaxation-promoting), āśuga (quickly acting), rūkṣa (dry), vikāśin (diffusive), and viśada (clear); the ten properties of ojas are: guru (heavy), śīta (cold), mṛdu (soft), ślakṣṇa (smooth), bāhala (gross),<sup>629</sup> madhura (sweet), sthira (immobile), prasanna (slowly acting), picchila (mucilaginous), and snigdha (oleaginous); the properties of an alcoholic drink counteract those of ojas in the following way: laghu is contrary to guru, uṣṇa to śīta, amla to madhura, tīkṣṇa to mṛdu, āśuga to prasanna, rūkṣa to snigdha, vyavāyin to sthira, vikāśin to ślakṣṇa, viśada to picchila, sūkṣma to sāndra;<sup>630</sup> thus sattva, residing there (i.e., in the seat of ojas, the heart), is quickly disturbed and brings about mada (intoxication) (24.30–34);<sup>631</sup> the heart is the seat of the channels (mārga) transporting rasa, vāta, etc., as well as the seat of sattva, buddhi, the senses, and the primary ojas;<sup>632</sup> for that reason the heart, and the dhātus located there, are pathologically changed by the immoderate use of alcoholic drinks and the damage of ojas resulting therefrom (24.35–36);<sup>633</sup> the first stage of intoxication<sup>634</sup> is characterized by stimulation (pratibodhita) of the heart, without any damage (avihata) to the ojas; the ojas is slightly damaged in the second stage, more seriously so in the third stage; a paṣṭika alcoholic drink does not cause damage to the ojas, because the properties vikāśin, rūkṣa and viśada are not predominant in it (24.37–38); alcoholic drinks produce mental changes (vikāra) of a rājasa and tāmasa character, culminating in confusion and sleep when used in excess; this pathological state caused by alcohol (madyavibhrama) is called mada (intoxication) (24.39–40); three stages (prathamā, madhyama, antya or uttama) of intoxication are described; a special variety, between the second and third stages, occurring in those of a rājasa or tāmasa character, is added (24.41–51);<sup>635</sup> the dangers of the improper and immoderate use of alcohol,<sup>636</sup> and its merits as a medicinal substance (24.52–60); the beneficial effects of alcohol (24.61–67);<sup>637</sup> alcoholic drinks are harmless when one pays due regard to the three types of foods, to drinks, age, disorders (vyādhi), strength, time, doṣa and character (sattva); this correct use is called yukti; a person with a sāttvika character may enjoy all the merits of alcohol (24.68–70); the mind (sattva) is stimulated in the first stage of mada, it loses its lucidity in the second stage, extremely so in the third stage; alcohol exposes the qualities of one's character, as fire exposes the qualities of gold (24.71–73); the sāttvika, rājasa and tāmasa ways of enjoying drinks (āpāna) (24.74–79); circumstances which make drinking for particular types of persons into a pleasant activity; persons who get drunk by a small quantity of alcohol (24.80–87); the aetiology and symptomatology of madātyaya dominated by vāta, pitta, kapha, and the three doṣas (24.88–100);<sup>638</sup> the general symptoms of madātyaya (24.101–106); general principles regarding the treatment of madātyaya; kapha is to be counteracted first, pitta and vāta being secondarily involved; a disorder caused by a particular alcoholic beverage is alleviated by the administration of the same drink<sup>639</sup>

(24.107–111);<sup>640</sup> alcoholic drinks lead to an impaired digestion; the rasa derived from the food (annarasa) acquires for that reason alkalinity (kṣāratā); the symptoms of this disorder are relieved by the consumption of alcohol, since alkalinity is quickly overcome by acidity,<sup>641</sup> profusely present in alcoholic drinks; alcoholic drinks, which are sour in nature, possess four secondary tastes (anurasa): sweet, astringent, bitter and pungent; their total number of properties is therefore fourteen (24.112–116); the treatment of madātyaya caused by vāta (24.117–135),<sup>642</sup> pitta (24.136–163),<sup>643</sup> kapha (24.164–188);<sup>644</sup> the ten kinds of saṃnipāta (24.189);<sup>645</sup> treatment in general (24.191–198);<sup>646</sup> two disorders, called dhvaṃsaka and vikṣaya, caused by excessive drinking after a period of abstinence; the symptoms and treatment of these disorders, which are curable with difficulty (24.199–205ab);<sup>647</sup> the praise of the proper use of alcohol (24.205cd); the advice to remain abstinent (24.206).

Chapter twenty-five is concerned with (inflamed) wounds and ulcers (vraṇa).<sup>648</sup>

The subjects dealt with are: the two groups of vraṇa: nija (endogenous), caused by the doṣas, and āganta (exogenous), caused by external agents; the causes of āgantuvraṇa;<sup>649</sup> differences in treatment (25.5–8); exogenous vraṇas which do not heal should be treated like endogenous ones, having regard to the doṣa(s) involved (25.9);<sup>650</sup> the characteristics and treatment of vraṇas caused by vāta, pitta, kapha (25.10–16);<sup>651</sup> the classification, etc., of the two groups of vraṇa (25.17–19); the twenty types of vraṇa are: suitable to surgical treatment (krtya) or unsuitable to it (akrtya),<sup>652</sup> vitiated (duṣṭa) or not vitiated (aduṣṭa), located in a marman (vital spot) or not located there, closed (saṃvṛta) or open, severe (dāruṇa) or mild, discharging (srāvin) or not discharging, containing toxic substances (saviṣa) or devoid of these, irregular (viṣamasthita) or regular, provided with pouches (utsaṅgin)<sup>653</sup> or devoid of these, elevated (utsanna)<sup>654</sup> or depressed (25.20–21);<sup>655</sup> the threefold examination of vraṇa(s): by inspection (darśana), interrogation (of the patient) (praśna) and palpation (saṃsparśa) (25.22–23);<sup>656</sup> the twelve types of vitiated (duṣṭa) vraṇa: white (śveta), provided with a narrow opening (avasannavartman),<sup>657</sup> provided with a very wide opening (atisthūlavartman),<sup>658</sup> very piñjara,<sup>659</sup> dark-blue (nīla) or śyāva,<sup>660</sup> covered with pustules (atipīḍaka), red (rakta), black (kṛṣṇa), excessively bad-smelling (atipūtika), apparently healing outside, but non-healing and recurring inside (ropya),<sup>661</sup> and bottle-necked (kumbhīmukha) (25.24–25ab);<sup>662</sup> these pathological conditions (doṣa) are twenty-four in number when classified according to another method (25.25cd);<sup>663</sup> the eight seats of vraṇa(s) are: the skin, vessels (sirā), muscular tissue, fatty tissue, bones, cords (snāyu), vital spots (marman), and the viscera (antarāśraya)<sup>664</sup> (25.26);<sup>665</sup> the eight kinds of smell of a vraṇa are: like that of ghee, oil, muscle-fat (vasā), pus (pūya) and blood, śyāva,<sup>666</sup> sour, and fetid (pūtika) (25.27);<sup>667</sup> the discharges from wounds (vraṇasrāva) are of fourteen kinds: like serous fluid (lasikā), water, pus or blood, yellow (hāridra), ruddy (aruṇa), piñjara,<sup>668</sup> ochre-coloured (kaṣāya), dark-blue (nīla), yellowish green (harita), oleaginous (snigdha), dry (rūkṣa), white (śita), and dark (asita) in colour (25.28–29ab);<sup>669</sup> the experts concerning vraṇa(s) (vraṇacintaka) acknowledge sixteen complications (upadrava): visarpa (erysipelas), pakṣaghāta



(hemiplegia or hemiparesis), sirāstambha (occlusion of vessels), apātānaka,<sup>670</sup> moha (mental confusion), unmāda (insanity), vṛṇarūja (pain in the vṛṇa), jvara (fever), tṛṣṇā (thirst), hanugraha (lockjaw), kāsa (cough), chardi (vomiting), atisāra (diarrhoea), hikkā (hiccup), śvāsa (shortness of breath), and vepathu (trembling) (25.29cd–31ab); factors which impair the healing of a vṛṇa: snāyukleda (softening of the cords),<sup>671</sup> sirākleda (softening of vessels), gāmbhīrya (deep-seatedness), kṛmibhakṣaṇa (tissue destruction caused by maggots), asthibheda,<sup>672</sup> saśālyatva (the presence of a corpus alienum), saṁvīṣatva (the presence of toxic substances), sarpaṇa (the tendency to spread), nakhakāṣṭhaprabheda (injury by nails or a piece of wood), carmātighaṭṭana (excessive rubbing of the skin), lomātighaṭṭana (excessive rubbing of the body hair), mithyābandha (faulty bandaging), atisneha (over-oleation), atibhaiṣajyakaṣaṇa (emaciation due to over-medication), ajīrṇa (disorders of the digestive process), atibhukta (overeating), viruddhabhojana (consumption of incompatible foods), asātmyabhojana (consumption of unsuitable foods), śoka (grief), krodha (anger), divāsvapna (sleeping by day), vyāyāma (physical exercise), maithuna (sexual intercourse), and niṣkriyatva<sup>673</sup> (25.31cd–34); degrees of curability (25.35–37);<sup>674</sup> therapeutic measures to be applied first (25.38–39ab); the thirty-six therapeutic measures in cases of vṛṇa: śophaghna (reduction of swelling),<sup>675</sup> the six kinds of śastrakarman (surgical intervention),<sup>676</sup> avapiḍana (compression),<sup>677</sup> nirvāpaṇa (reduction of calor),<sup>678</sup> saṁdhāna (union),<sup>679</sup> sveda (sudation),<sup>680</sup> śamana (pacification of excited doṣas), eṣaṇa (probing),<sup>681</sup> śodhana (purification) by means of decoctions (kaṣāya),<sup>682</sup> ropaṇa (promotion of granulation) by means of decoctions (kaṣāya),<sup>683</sup> śodhana by means of pastes (pralepana),<sup>684</sup> ropaṇa by means of pastes,<sup>685</sup> śodhana by means of oils (taila),<sup>686</sup> ropaṇa by means of oils,<sup>687</sup> two kinds of patracchādana (covering with leaves),<sup>688</sup> two kinds of bandhana (bandaging),<sup>689</sup> bhojya (diet), utsādana (elevation, i.e., the promotion of granulation, which elevates the level of the wound),<sup>690</sup> two kinds of dāha (cauterization and the application of caustic fluids),<sup>691</sup> avasādana (depression, i.e., the reduction of too large an amount of granulation tissue),<sup>692</sup> dhūpana (fumigation) of a kāṭhinyakara (promoting firmness of the new tissue) type,<sup>693</sup> dhūpana of a mārḍavakara (inducing softness) type,<sup>694</sup> ālepana of a kāṭhinyakara type,<sup>695</sup> ālepana of a mārḍavakara type,<sup>696</sup> avacūrṇana (the application of a powder),<sup>697</sup> varṇya (restoration of the normal colour of the skin),<sup>698</sup> ropaṇa (healing of a wound or ulcer), and lomaroḥaṇa (restoration of hair growth)<sup>699</sup> (25.39cd–43).<sup>700</sup>

The remaining part of the chapter (25.44–121) is concerned with treatment,<sup>701</sup> mainly guided by the thirty-six therapeutic measures enumerated.<sup>702</sup>

Poultices (upānāha) are prescribed for inducing maturation (pāka) of an inflamed wound (25.49–51); the symptoms of an inflamed vṛṇa in the maturational stage, when it is called vidagdha, are listed, followed by those when it is fully mature (saṁpakva) (25.52); drugs are described which are helpful in making an inflamed and ripe sore burst (pakvaśoṭhaprabhedana; 25.53–54ab).<sup>703</sup>

Six types of surgical intervention are mentioned:<sup>704</sup> pāṭana (incision),<sup>705</sup> vya-dhana (puncturing),<sup>706</sup> chedana (excision),<sup>707</sup> lekhana (scraping),<sup>708</sup> pracchana (scarification),<sup>709</sup> and sṭvana (suturing).<sup>710</sup> Disorders suitable to be treated by means of each of these procedures are enumerated (25.55–61ab).<sup>711</sup>

Two kinds of probes (eṣaṇī) are described: a soft one, made of plant stalks, and a hard one, made of metal (loha) (25.81).

Chapter twenty-six, called trimarmīyacikitsita, gives an account of diseases of the three vital organs (marman) and their treatment.<sup>712</sup> These three chief ones among the 107 marmans are the urinary bladder, heart and head.<sup>713</sup> These organs are seats of the prāṇas; the latter are therefore affected too by doṣas corrupting their seats (26.3–4).<sup>714</sup>

The chapter begins with the general aetiology, pathogenesis and symptomatology of udāvarta,<sup>715</sup> other diseases following in the wake of udāvarta, and the treatment of this disease (26.5–23).<sup>716</sup> The symptoms and treatment of a related disorder, ānāha, caused by āma, are also described (26.24–26).<sup>717</sup>

The next section discusses diseases affecting the urinary bladder: mūtrakṛcchra and āsmaṛī.<sup>718</sup>

The general aetiology and pathogenesis of mūtrakṛcchra (dysuria) are described, followed by the symptoms of the types caused by vāta, pitta, kapha, and saṃnipāta<sup>719</sup> (26.32–35); mūtrakṛcchra is said to be of eight types (26.32).<sup>720</sup>

Āsmaṛī (vesical calculi) is described as a disorder arising when vāta, reaching the bladder, desiccates semen (śukra), urine, pitta or kapha; its origin resembles that of gallstones (rocanā) in cattle (26.36).<sup>721</sup> The various forms of this disease and their symptoms are discussed;<sup>722</sup> vesical calculi may be disintegrated through the action of vāta, in which case the disorder is called śarkarā (gravel)<sup>723</sup> (26.37–44); the treatment of mūtrakṛcchra brought about by vāta, pitta, kapha and the three doṣas is discussed (26.45–58),<sup>724</sup> followed by the treatment of āsmaṛī<sup>725</sup> and śarkarā (26.59–76);<sup>726</sup> surgical extraction of a calculus should be resorted to in refractory cases (26.68);<sup>727</sup> a type of mūtrakṛcchra arising from obstruction to (the flow of) semen is referred to (26.69: reto'bhigātaprabhava), as well as a type arising from blood (26.73–75).<sup>728</sup>

The aetiology (26.77),<sup>729</sup> general symptomatology (26.78),<sup>730</sup> and the symptoms of the types of hṛdroga (heart disease),<sup>731</sup> caused by vāta, pitta, kapha, saṃnipāta and parasites (kṛmi), are described (26.79–80);<sup>732</sup> the treatment of hṛdroga is dealt with (26.81–103).<sup>733</sup>

The general aetiology of pratiśyāya (nasal catarrh)<sup>734</sup> is discussed, followed by the symptoms of the types caused by vāta, pitta and kapha; when all the three doṣas are involved, it is called pīnasa (26.104–107ab).<sup>735</sup> Aggravation of the disease, due to unwholesome diet and neglect, converts it into duṣṭapратиśyāya,<sup>736</sup> which may lead to the following diseases: kṣavathu (sneezing), nāsāśoṣa (dryness of the nose),<sup>737</sup> pratīnāha (nasal obstruction), parisrava (purulent rhinitis), ghrāṇapūtitva (a foul smell from the nose),<sup>738</sup> apīnasa,<sup>739</sup> (nāsā)pāka (inflammation of the nose),<sup>740</sup> (nāsā)śoṭha (swelling of the nose), (nāsā)-arbuda (growths in the nose), pūyarakta (purulent and sanguinolent rhinitis), arūṃṣi (boils),<sup>741</sup> diseases of the head, ears and eyes, khālitya (alopecia),<sup>742</sup> conditions making the hair brown (haribhāva) or tawny (arjunaabhāva), tṛṣ (thirst), śvāsa (shortness of breath), kāsā (cough), jvara (fever), raktapitta (haemorrhagic disorders), vaisvarya (disorders of the voice),<sup>743</sup> and śoṣa (desiccation) (26.107cd–109);<sup>744</sup> these diseases, from duṣṭapратиśyāya up to arūṃṣi, are described (26.110–117ab);<sup>745</sup> a nasal disease called dīpta, which makes the nose flamingly red (pradīpta), is added to

the list (26.117cd).

Five types of śīroroga (diseases of the head) are described: caused by vāta, pitta, kapha, saṁnipāta, and parasites (krimi) (26.118).<sup>746</sup>

Four types of mukharoga (diseases of the oral cavity) are described: caused by vāta, pitta, kapha, and saṁnipāta (26.119–122ab);<sup>747</sup> their number is sixty-four<sup>748</sup> with regard to their location (saṁsthāna), corruptible element(s) affected (dūṣya), symptoms (ākṛti),<sup>749</sup> and name; the aetiology, symptomatology and treatment of these six y-four diseases are discussed in surgical textbooks (śālākya tantra); the treatment of the four types mentioned will be described in the present treatise (26.122cd–123).<sup>750</sup>

Arocaka (anorexia) is of several types.<sup>751</sup> The symptoms of this disease when caused by vāta, pitta and kapha, are described. Loss of appetite is the only symptom of the psychogenic varieties, brought about by grief, anxiety, greed, anger, disgusting smells, and foods which are disgusting to look at (26.124–126).<sup>752</sup>

Four types of kaṁṇaroga (ear disease) are described: caused by vāta, pitta, kapha and all three doṣas (26.127–128).<sup>753</sup>

Four types of netraroga (eye disease) are described: caused by vāta, pitta, kapha and all three doṣas; the treatises on śālākya deal with ninety-six of these diseases; the present treatise does not attempt to discuss them, because they belong to the domain of others (parādhikāra) (26.129–131).<sup>754</sup>

Khalati (baldness) arises when the bodily heat (tejas), together with vāta, etc., burns the scalp (keśabhūmi); when this action is mild, the hair turns grey (palita) or brown (hariprabhatva) (26.132).<sup>755</sup>

The diseases of the supraclavicular region (ūrdhvajatrūthagada) have partially been described now in order to fill up a lacuna (aśūnyatārtha) (26.133ab).<sup>756</sup>

The remaining part of the chapter is devoted to the treatment of pratiśyāya, pīnasa, and other diseases of the nose (26.134–157),<sup>757</sup> diseases of the head (26.158–186),<sup>758</sup> diseases of the teeth, oral cavity and throat (26.187–214),<sup>759</sup> arocaka (26.215–220),<sup>760</sup> diseases of the ears (26.221–230),<sup>761</sup> diseases of the eyes (26.231–262ab),<sup>762</sup> baldness,<sup>763</sup> greying of the hair, wrinkles, etc. (26.262cd–282),<sup>764</sup> and the five types of svarabheda (disorders of the voice): caused by vāta, pitta, kapha, blood, and saṁnipāta (26.283–290).<sup>765</sup>

Recipes with a name are: aṇutaila (26.239–241ab),<sup>766</sup> māyūraghrta (26.158–165),<sup>767</sup> mahāmāyūraghrta (26.166–174),<sup>768</sup> kālakacūrṇa (26.194cd–196ab),<sup>769</sup> pītākacūrṇa (26.196cd–198ab),<sup>770</sup> khadirādiḡuṭikā and -taila (26.206–214), sukhāvatī varti (26.252–253),<sup>771</sup> dr̥ṣṭipradā varti (26.254–256ab),<sup>772</sup> and mahānīlataila (26.268cd–276ab).<sup>773</sup>

Chapter twenty-seven, on ūrustambha,<sup>774</sup> begins with Agniveśa asking his teacher whether there is a disease not amenable to treatment by means of pañcakarma and nevertheless curable. Ātreya replies that ūrustambha is such a disease (27.3–7).

The aetiology, pathogenesis, symptoms and prodromes of this disease are described; when āma (undigested matter), which has accumulated in the viscera, has, together with medas, obstructed vāta and the other doṣas, it descends, owing to its heaviness, to the thighs (ūru) and lower parts of the legs, impairing their mobility;

the disease is called ūrustambha because kapha, together with medas, overpowers vāta and pitta, which leads to restricted mobility (stambhayati) on account of the immobility (sthairya) and coldness (śaitrya) (of kapha) (27.8–15). If treated like a vā-tavyādhi, it aggravates further, presenting as additional symptoms weakness (sadana) and numbness (supti) of the legs and problems with raising (uddharaṇa) them (27.16). More symptoms are enumerated (27.17–18).<sup>775</sup> Degrees of curability are described (27.19). The reasons for the non-applicability of pañcakarman are given: āma and kapha, when located in a seat of vāta (such as the thighs), cannot be eliminated by means of these procedures (27.20–24).

The remaining part of the chapter is devoted to the internal (27.25–48ab) and external treatment (27.48cd–57) of ūrustambha, ending with some general rules concerning its management (27.58–61).<sup>776</sup>

The only recipe with a name is aṣṭakaṭvaratāila (27.47).

Chapter twenty-eight is concerned with the group of diseases called vātavādhi (wind disease).<sup>777</sup>

The chapter opens with the praise of vāyu.<sup>778</sup> Someone, whose vāyu can move without any impediment, remains in its own seat and maintains its normal state (prakṛti), may live, without any disease, for a hundred years<sup>779</sup> (28.3–4).

The five kinds of vāyu are discussed next.<sup>780</sup>

The seats of prāṇa are head, chest, throat, tongue, oral cavity and nose; its actions are spitting (ṣṭhivana), sneezing (kṣavathu), eructation (udgāra), respiration (śvāsa), deglutition of the food (āhāra), etc.

The seats of udāna are the umbilical region, chest and throat; its actions are speaking (vākpravṛtti), effort (prayatna), vitality (ūrjas), strength (bala), complexion (varṇa), etc.

Samāna, seated in the channels transporting sweat, doṣas and water, and located near to the internal fire (antaragni), bestows strength on that fire.

Vyāna, which moves swiftly and pervades the whole body, brings about motion (gati), extension (prasāraṇa), contraction (ākṣepa), blinking, etc.

The seats of apāna are the testicles, bladder, penis, umbilical region, thighs, groins, and ano-rectal region (guda); staying in the intestines too, it eliminates semen, urine, faeces, the menstrual discharge (ārtava) and the (full grown) foetus.

When staying in their normal seats and functioning together, they perform their functions, thus sustaining the body and preserving its healthy state (28.5–11);<sup>781</sup> when moving on a wrong path and being deranged, they afflict the body with disorders relating to their seats and actions, and may quickly take life away. Although the disorders they bring about are innumerable, the main ones, i.e., the eighty disorders beginning with cracking of the nails (nakhabheda), have been mentioned in the Sūtra (sthāna).<sup>782</sup> They will now be described, along with their causes and treatment, with regard to vāyu, both when singly (affected) in a particular seat and when covered (āvrta) (by another doṣa) (28.12–14).

The aetiology of vāta diseases in general is dealt with (28.15–19ab). The not fully developed (avyakta) signs of these diseases are the prodromes, the fully developed

(vyakta) signs are the specific symptoms (ātmārūpa), while slight signs indicate subsidence (apāya) of the disease (28.19cd–21ab).

The general symptoms of excited vāta are enumerated (28.20cd–23). Peculiarities concerning cause(s) and location lead to particularities of the diseases which arise (28.24ab).

The symptoms of the disorders which appear when corrupted vāta has become lodged in a particular part or constituent of the body, or the whole body, are dealt with in the next section. The parts mentioned are: the viscera (koṣṭha), the whole body, ano-rectal region (guda), receptacle of undigested food (āmāśaya),<sup>783</sup> receptacle of digested food (pakvāśaya),<sup>784</sup> sense organs (indriya),<sup>785</sup> skin (tvac),<sup>786</sup> blood (rakta), muscular and fatty tissues (māṃsa and medas), bones and bone marrow (asthi and majjā), semen (śukra), cords (snāyū), vessels (sirā), and junctures (sandhi)<sup>787</sup> (28.24cd–37).

Several specific diseases are described in the section that follows. These diseases are: arditā (facial paresis) (28.38–42),<sup>788</sup> manyāstambha (28.43a–c),<sup>789</sup> antarāyāma (28.43d–45c),<sup>790</sup> dhanuṣṭambha or bahirāyama (28.45d–48),<sup>791</sup> hanugraha (lockjaw) (28.49–50ab),<sup>792</sup> ākṣepaka (convulsions) (28.50cd–51ab),<sup>793</sup> danḍaka (28.51cd–52ab),<sup>794</sup> curable and incurable forms of the diseases mentioned (ardita up to danḍaka) (28.52cd–53ab), pakṣavadhā (hemiplegia) (28.53cd–54),<sup>795</sup> ekāṅgaroga (paresis or paralysis of one limb)<sup>796</sup>; and sarvāṅgaroga (tetraplegia) (28.55),<sup>797</sup> grāhṣrī (sciatica) and its two varieties (28.56–57ab),<sup>798</sup> and khallī (28.57cd).<sup>799</sup>

The remaining disorders should be known from the signs characteristic of the seat (of vāta) (28.58ab); the combination of vāta with pitta, etc., should also be taken into consideration (28.58cd).

Excitation of vāta comes about through deficiency of dhātus and obstruction of pathways (mārgāvaraṇa);<sup>800</sup> vāta, pitta and kapha move through all the channels; only vāta, due to its subtleness, is able to make the other two move about; when excited, it agitates the other two, hurling them to various places, where, due to this, diseases appear, brought about by pathways which are obstructed, thus leading to drying up of rasa, etc. (28.59–61ab).<sup>801</sup>

The symptoms of the disorders are described which are the result of vāta being obstructed (or: covered, āvrta) by pitta, kapha, blood, muscular tissue, fatty tissue,<sup>802</sup> bone tissue, bone marrow, semen, food (anna), urine or faeces (28.61cd–72ab).<sup>803</sup>

Curable with difficulty or incurable are, due to their deep-seatedness: luxation of joints (sandhicryuti),<sup>804</sup> lockjaw (hanuṣṭambha), contractures (kuñcana),<sup>805</sup> kyphoscoliosis (kubjātā),<sup>806</sup> arditā, hemiplegia (pakṣāghāta),<sup>807</sup> desiccation (saṃśoṣa)<sup>808</sup> of parts of the body,<sup>809</sup> parigutva,<sup>810</sup> khudāvātāt,<sup>811</sup> stambhana,<sup>812</sup> āhvyavāta,<sup>813</sup> and the diseases caused by vāta when lodged in bones or bone marrow. These diseases may be treated when of recent origin, free from complications, and occurring in strong patients (28.72cd–74).<sup>814</sup>

The treatment of the diseases described is discussed<sup>815</sup> (28.75–198).<sup>816</sup> Additional disorders referred to are: desiccation of a foetus (28.95) and of young children (28.95), vāta lodged in the cardiac region (28.96), umbilical region (28.97), arms (28.98) and head (28.98).

Recipes provided with a name are: *balātaila* (28.148cd–157ab),<sup>817</sup> *amṛtādyataila* (28.157cd–164),<sup>818</sup> *rāsnātaila*<sup>819</sup> (28.165–166),<sup>820</sup> *mūlakādyataila* (28.167–169),<sup>821</sup> *vṛṣamūlādītaila* (28.170–171), *mūlakataila* (28.172–176ab),<sup>822</sup> and *laṣunataila* (28.177).<sup>823</sup>

The last part of the chapter begins with syndromes occurring when one of the five kinds of *vāta* covers another kind, thus obstructing it in its course.

Twenty types are distinguished.<sup>824</sup> The symptoms of four varieties of mutual covering (*anyonyāvaraṇa*) are described, together with their treatment: *vyāna* covered by *prāṇa*, *prāṇa* covered by *vyāna*, *samāna* covered by *prāṇa*, *prāṇa* covered by *samāna* (28.199–206ab), followed by a series of eight varieties: *udāna* covered by *prāṇa*, *prāṇa* covered by *udāna*, *apāna* covered by *prāṇa*, *prāṇa* covered by *apāna*, *apāna* covered by *vyāna*, *vyāna* covered by *apāna*, *vyāna* covered by *samāna*, and *vyāna* covered by *udāna* (28.206cd–217ab); the other varieties can be diagnosed and treated by taking into consideration the seats and functional changes of the kinds of *vāta* involved (28.217cd–219ab). Some general principles concerning the treatment of this type of disorders are expounded (28.219cd–221ab).

Finally, syndromes are described which result from one of the five kinds of *vāta* being covered by *pitta* or *kapha* (28.221cd–231ab). Syndromes resulting from covering by both *pitta* and *kapha* should be properly diagnosed (28.231cd–233ab).

Serious conditions are those in which *prāṇa* or *udāna* are covered by *kapha* and *pitta*, since life is dependent on *prāṇa* and strength on *udāna* (28.233cd–235ab). Circumstances leading to incurability are mentioned (28.235cd–236ab). Complications of covered types of *vāta* are cardiac diseases (*hṛdroga*), abscesses (*vidradhi*), splenomegalia (*phīhan*), *gulma*, and diarrhoea (28.236cd–237). The treatment of the disorders by covered *vāta* is discussed (28.238–245).

The chapter ends with comparing the movements of *vāta*, *pitta* and *kapha* to those of air, sun and moon (28.246).

Chapter twenty-nine discusses the disease called *vātaśoṇita*.<sup>825</sup>

The subjects dealt with are: the aetiology and pathogenesis of *vātaśoṇita*; the disease arises when increased (*vivṛddha*) *vāta*, being obstructed (*āvārita*) in its course by (independently)<sup>826</sup> increased blood, corrupts all the blood; its names are *vātaśoṇita*, *khūḍa*,<sup>827</sup> *vātabalāsa* and *āḍhyavāta*<sup>828</sup> (29.3–11); the seats of *vātaśoṇita*: hands, feet, fingers, and all the joints (*sandhi*); it begins in hands and feet, whence it spreads over the body (29.12); due to the subtleness (*saukṣmya*) and ubiquity (*sarvasaratva*) of *vāta*, and due to the liquidity (*dravatva*) and flowing nature (*saratva*) of blood, it spreads through the vessels (*sirāyana*) over the body, gets stuck in the joints, and causes, in combination with *pitta*, etc., various painful sensations (*vedanā*), hard to endure, in those very joints (29.13–15);<sup>829</sup> the prodromes (29.16–18);<sup>830</sup> the two types of the disease: *uttāna*,<sup>831</sup> located in skin and muscular tissue, and *gambhīra*,<sup>832</sup> located in the interior (*dhātus*); the symptoms of the two types;<sup>833</sup> cases where the symptoms of both types are found (29.19–23);<sup>834</sup> the symptoms of *vātaśoṇita* with a predominance of *vāta*, blood, *pitta* or *kapha*, and with a predominance of two or three *doṣas* (29.24–29);<sup>835</sup> degrees of curability (29.30); complications and their influence on the degree of cur-

ability (29.31–34);<sup>836</sup> treatment<sup>837</sup> (29.35–162).<sup>838</sup>

Recipes provided with a name are: pāṛśakaghṛta (29.58–60),<sup>839</sup> jīvanīyasarpis (29.61–70),<sup>840</sup> madhupāṇyāditaila (29.91–95), sukumārakataila (29.96–102),<sup>841</sup> amṛtādyataila (29.103–109),<sup>842</sup> mahāpadmataila (29.110–113),<sup>843</sup> khudālakapadmakataila (29.114–115ab),<sup>844</sup> śatapākamadhukataila (29.115cd–118),<sup>845</sup> sahasrapāka- or śatapākabalātaila (29.119–120),<sup>846</sup> and piṇḍataila (29.123).

Chapter thirty, on yonivyāpad<sup>847</sup>, is concerned with diseases of the female genital tract<sup>848</sup> and some analogous disorders in males.

The subjects dealt with are: the general aetiology of the twenty types of yonivyāpad<sup>849</sup> (30.7–8); the aetiology and symptomatology of yonivyāpad<sup>850</sup> caused by vāta<sup>851</sup>, pitta<sup>852</sup>, kapha<sup>853</sup> and all three doṣas<sup>854</sup> (30.9–15);<sup>855</sup> the aetiology and symptomatology of sixteen more types of yonivyāpad: sāsrjā<sup>856</sup> (30.16), arajaskā<sup>857</sup> (30.17), acarāṇā<sup>858</sup> (30.18),<sup>859</sup> aticarāṇā<sup>860</sup> (30.19), prākcarāṇā<sup>861</sup> (30.20), upaplūtā<sup>862</sup> (30.21–22), pariplūtā<sup>863</sup> (30.23–24), udāvartini<sup>864</sup> (30.25–26), karnīni<sup>865</sup> (30.27–28ab), putraghni<sup>866</sup> (30.28cd–29ab), antarmukhī<sup>867</sup> (30.29cd–31ab), sūcīmukhī<sup>868</sup> (30.31cd–32ab), yonimukhaśoṣa<sup>869</sup> (30.32cd–33ab), vāminī<sup>870</sup> (30.33cd–34ab), ṣaṇḍhī<sup>871</sup> (30.34cd–35ab), and mahāyoni<sup>872</sup> (30.35cd–37ab); the twenty types of yonivyāpad prevent conception and lead to various other disorders (30.37cd–39ab); sāsrjā and arajaskā are caused by pitta, pariplūtā and vāminī by vāta and pitta, upaplūtā and karnīni by vāta and kapha, the remaining ones by vāta (30.39cd–40);<sup>873</sup> treatment of yonivyāpad (30.41–86ab);<sup>874</sup> treatment of raktayoni = asṛgdara<sup>875</sup> (bleeding from the genital tract) and its doṣic types; treatment of yonidoṣa = rajadoṣa<sup>876</sup> (discharges from the genital tract) (30.86cd–99);<sup>877</sup> treatment of all kinds of yonivyāpad (30.100–126ab);<sup>878</sup> the eight śukradoṣas<sup>879</sup> (defects of the semen): semen that is phemila (frothy), tanu (thin), rūkṣa (dry), vivarṇa (of an abnormal colour), pūti (foul-smelling), picchila (mucilaginous), anyadhātūpasaṁsrṣṭa (combined with other bodily constituents)<sup>880</sup> and avasādin (sinking when placed in water); the characteristics of semen affected by one of the doṣas; the characteristics of normal semen (30.127cd–146ab);<sup>881</sup> the treatment of the disorders mentioned (30.146cd–153ab);<sup>882</sup> the four types of kḷaibya (disorders of potency): brought about by injury (upaghāta) to the seed (bīja) or the penis (dhvaja),<sup>883</sup> old age (jarā), and deficiency (saṁkṣaya) of the semen (śukra); the aetiology and symptoms of each of these types (30.153cd–187);<sup>884</sup> some regard kḷaibya caused by injury to the penis (dhvajabhaṅga) and deficiency of the semen as incurable, as well as the types caused by amputation (cheda) of the penis and removal of the testicles (vr̥ṣaṇotpātana) (30.188);<sup>885</sup> a kind of incurable impotency is described that is due to a disorder of the parental seed (bījadoṣa) and transgressions in previous existences (30.189–191ab); the treatment of these disorders<sup>886</sup> (30.191cd–204ab);<sup>887</sup> the general aetiology and pathogenesis of the group of disorders called pradara or asṛgdara (menorrhagia, metrorrhagia, and related disorders)<sup>888</sup> (30.204cd–209);<sup>889</sup> the specific aetiology and symptomatology of pradara<sup>890</sup> caused by vāta,<sup>891</sup> pitta,<sup>892</sup> kapha<sup>893</sup> and saṁnipāta (30.210–224);<sup>894</sup> the characteristics of a normal menstrual discharge (ārtava) (30.225–226);<sup>895</sup> general principles of the treatment of pradara (30.227–228);<sup>896</sup> the general aetiology and pathogenesis of the eight kinds of

disorders of the breast milk (kṣīradoṣa) (30.229–236);<sup>897</sup> the aetiology of kṣīradoṣa caused by vāta, pitta and kapha, the characteristics of the milk in these types, and the children's disorders resulting from drinking this milk (30.237–250); the treatment of these disorders (30.251–282ab);<sup>898</sup> general rules for the treatment of children (30.282cd–287).

The remaining part of the chapter forms an appendix to the Cikitsāsthāna. It begins with the statement that the treatment of all disorders has now been dealt with (30.288), followed by two verses of Dṛḍhabala, in which he informs the reader that seventeen chapters of the Cikitsāsthāna of the *Agniveśatantra*, as revised by Caraka, as well as the whole of the Kalpasthāna and Siddhisthāna, being not available, were added by him, in order to complete the treatise (30.289–290).

General rules concerning treatment are formulated with a view to the management of those diseases which are left undescribed. All remedial measures are said to require due consideration of place (deśa), time (kāla),<sup>899</sup> dosage (pramāṇa), suitability (sātmya) and unsuitability (asātmya)<sup>900</sup> (30.291–293). These elements are more elaborately discussed: deśa (30.294–295), kāla (30.296–312), pramāṇa (30.313–314), sātmya and asātmya (30.315–333). The rules are illustrated by means of numerous examples.

Some of these examples relate to the appropriate time of administration of a drug: in disorders of apāna a drug should be taken before a meal, in disorders of samāna during a meal, in disorders of vyāna after breakfast, in disorders of udāna after dinner, in disorders of prāṇa repeatedly during a meal (30.299–300ab).<sup>901</sup>

The rules concerning suitability mention various peoples and their dietary habits; the Bāhlikas, Pahlavas,<sup>902</sup> Cīnas,<sup>903</sup> Śūlikas,<sup>904</sup> Yavanas,<sup>905</sup> Śakas, Prācyas, Saindhavas, Aśmakas,<sup>906</sup> Avantikas,<sup>907</sup> the inhabitants of the Malaya region, the inhabitants of the South, North-West and Madhyadeśa (30.315–320ab).<sup>908</sup>

Examples are given of treatments to be applied in special cases, where the general rules are not valid (30.321cd–325).



## Chapter 7

### Kalpasthāna

Chapter one<sup>1</sup> (madanakalpa<sup>2</sup>) begins with an exposition on the contents of the Kalpasthāna: emetic (vamanadravya) and purgative drugs (virecanadravya) will be discussed, their combination with other substances, their way of preparation and administration, etc. (1.3).<sup>3</sup>

The terms vamaṇa and virecana are defined; both are collectively known as virecana (1.4). The emetic and purgative actions of particular drugs are explained with regard to their properties, the mahābhūtas which are predominantly present in them, their vīrya and prabhāva, and their physiological effects (1.5).<sup>4</sup>

Six hundred emetic (chapters 1–6) and purgative (chapters 7–12) preparations will be described (1.6), which are the most suitable ones when endowed with excellency regarding place (of origin), time (of collection), properties and containers (bhājana) (1.7).

The place of origin (deśa) is of three types: arid (jāṅgala), marshy (ānūpa) and intermediate (sādhāraṇa);<sup>5</sup> flowery descriptions of these types of country are given (1.8).<sup>6</sup> Recommended for medicinal purposes are plants growing in a sādhāraṇa or jāṅgala region, if particular unfavourable circumstances are absent (1.9).<sup>7</sup> Particularly commendable properties are mentioned; the seasons in which particular plant parts should be collected are specified; rituals to be observed are referred to<sup>8</sup> (1.10).<sup>9</sup> The most suitable ways of storage are described;<sup>10</sup> daily worship is required again (1.11).<sup>11</sup> The vehicles to be given together with a drug, dependent on the predominant doṣa, are enumerated (1.12).

The remaining part of the chapter is devoted to the fruits of madana, the seeds (pipalī) of which are the best emetic drug, the way the fruits should be collected, prepared for use, combined with other drugs, etc.<sup>12</sup>

A total of 133 formulations with madana as the chief ingredient are described: nine kinds in a kaṣāya (1.14), eight kinds of mātṛā<sup>13</sup> (1.16), five preparations with milk and ghee (1.17–18), one kind of snuff (ghreya) (1.19), one kind of phāṇita<sup>14</sup> (1.20), one kind of cūrṇa (1.20), six kinds of vartī<sup>15</sup> (1.21), twenty kinds of leha<sup>16</sup> (1.22), twenty kinds of utkārīkā<sup>17</sup> (1.23), twenty kinds of modaka<sup>18</sup> (1.23), sixteen kinds of śaṣkūlī<sup>19</sup> (1.24–25), sixteen kinds of pūpa<sup>20</sup> (1.24–25), ten kinds of śaḍava<sup>21</sup> and other types of preparation (1.26). The synonyms of madana are enumerated (1.27).

Chapter two is devoted to preparations with the fruits and flowers of jīmūta as their chief ingredient.<sup>22</sup>

The synonyms of jīmūta are enumerated (2.3), followed by the general indications

for the administration of this drug (2.4).

A total of thirty-nine formulations are described: six preparations with milk (2.5–7), one with *surāmaṇḍa*<sup>23</sup> (2.8), twelve in a *kaṣāya* (2.9–10ab), seven in a *kaṣāya* (2.10cd–11ab), eight kinds of *mātrā*<sup>24</sup> (2.11cd), four in a *rasa* (2.12), and one ghee (2.13).

Chapter three deals with preparations containing various parts of *ikṣvāku* as their chief ingredient.<sup>25</sup>

The synonyms of *ikṣvāku* are enumerated (3.3cd–4ab), followed by the general indications for its use in medicine (3.4cd–5ab).

Forty-five formulations are described: eight preparations in milk (3.5cd–6 and 7cd–10ab), one in *surāmaṇḍa* (3.7ab), one in *mastu*<sup>26</sup> (3.10cd), one in *takra*<sup>27</sup> (3.11ab), one kind of snuff (*ghreya*) (3.11cd–12ab), one with *guḍa*<sup>28</sup> and *palala*<sup>29</sup> (3.12cd), one oil (3.13ab), one ghee (3.13ab), six with a successively increasing number of *ikṣvāku* seeds in a decoction of one of the drugs of the *phalādi* group<sup>30</sup> (3.13cd–14ab), one in a *kaṣāya* of *yaṣṭyāhva*<sup>31</sup> and eight in a *kaṣāya* of one of the drugs of the *kovidārādi* group<sup>32</sup> (3.14cd), eight *mātrāyogas*<sup>33</sup> (3.15ab), five kinds of *leha* (3.15cd–19ab)<sup>34</sup>, one in a *mantha*<sup>35</sup> (3.19cd–20ab), and one in *māṇsarasa* (meat broth) (3.20c-f).

Chapter four deals with preparations containing various parts of *dhāmārgava* as their chief ingredient.<sup>36</sup>

The synonyms of *dhāmārgava* are enumerated (4.3), followed by the general indications for its use (4.4–5ab).

Sixty formulations are described: nine kinds of *gulikā*<sup>37</sup>, made of young leaves (*pravāla*, *pallava*), to be taken together with a *kaṣāya* of *madhuka*<sup>38</sup> or one of the drugs of the *kovidārādi* group<sup>39</sup> (4.6), four preparations in milk (4.7), one in *surā* (4.7), nine in a *kaṣāya* of *madhuka* or one of the drugs of the *kovidārādi* group (4.7–9ab), one mixed with food (4.9cd), one snuff (*ghreyayoga*) (4.10),<sup>40</sup> twelve kinds of *varti* soaked in the liquid from the dung of various animals (4.11–12), ten kinds of *leha* (4.13–15ab), one *kalka* (4.15cd), eleven in a *kaṣāya* (4.16–18ab), and one ghee (4.18cd).

Chapter five deals with preparations containing *vatsaka* seeds as their chief ingredient.<sup>41</sup>

The names of *vatsaka* and its seeds (*indrayava*) are enumerated (5.4). The male and female plants are described (5.5). The general indications for the use of the drug are given (5.6).

Eighteen formulations are described: nine in a *kaṣāya* of *madhuka* or one of the *kovidārādi* drugs (5.7–9ab),<sup>42</sup> a *cūrṇa*,<sup>43</sup> to be taken in combination with one of five *kaṣāyas* (5.9cd–10) or one of three watery solutions (5.11ab) or together with *kṛṣāra*<sup>44</sup> (5.11cd).

Chapter six deals with preparations of various parts of *kṛtavedhana*.<sup>45</sup>

The names of *kṛtavedhana* are listed and its chief indications are mentioned (6.3–4).

A total of sixty formulations are described: four preparations in milk, etc. (6.5ab),<sup>46</sup> one in surā (6.5ab), nine in a kaṣāya of one of the drugs of the madhukādi group<sup>47</sup> (6.5cd–6ab), nine in a kaṣāya of one of the drugs of the āragvadhādi group<sup>48</sup> (6.6cd–7), ten in a picchā<sup>49</sup> prepared with the cūrṇa of śālmālī roots<sup>50</sup> (6.8ab), six kinds of vartī (6.8cd), one ghee (6.8cd), eight kinds of leha (6.9–10), seven preparations in a meat broth (6.11–12ab), and one in sugarcane juice (ikṣurasa) (6.12cd).

Chapter seven deals with preparations containing śyāmā or trivṛt<sup>51</sup> as their chief ingredient.<sup>52</sup>

The roots of trivṛt constitute the best among the purgative drugs (7.3ab). The synonyms of trivṛt(ā) are enumerated (7.3cd–4). Its properties and actions are described (7.5–6).<sup>53</sup> The differences between the roots of the śyāmā and aruṇā types of trivṛt are discussed, including the indications for the preferential use of one of both types (7.7–9).<sup>54</sup> The way of collecting and preparing the roots is described (7.10–11).

One hundred or more formulations are described: nine preparations in amla,<sup>55</sup> four kinds of urine, sauvīraka,<sup>56</sup> tuṣodaka,<sup>57</sup> prasannā,<sup>58</sup> or a kaṣāya of triphalā (7.12cd–13), twelve in a saline solution (7.14),<sup>59</sup> eighteen preparations with cow's urine (7.15–17ab),<sup>60</sup> two with madhuka (liquorice) (7.17cd),<sup>61</sup> fourteen of the same type as the preceding ones, but with jīvaka and thirteen other drugs (7.18–20ab), seven preparations in milk and six other substances (7.20cd–21ab), eight kinds of leha (7.21cd–27, 29–32, 37–39),<sup>62</sup> four kinds of sitāyoga (7.28),<sup>63</sup> five preparations in a pānaka,<sup>64</sup> meat broth (rasa),<sup>65</sup> yūṣa,<sup>66</sup> in modakas,<sup>67</sup> or in a rāgaśāḍava<sup>68</sup> (7.33–35),<sup>69</sup> five kinds of modaka (7.36–55),<sup>70</sup> six preparations to be prescribed in accordance with the seasons (7.56–64),<sup>71</sup> two kinds of tarpaṇa (7.65–66ab), four in milk and ghee (7.66cd–68),<sup>72</sup> two kinds of alcoholic preparation<sup>73</sup> (7.69–71),<sup>74</sup> one in sauvīraka (7.72),<sup>75</sup> one in tuṣodaka (7.73),<sup>76</sup> ten in a śāḍava and other types of preparation (7.74).<sup>77</sup>

Chapter eight deals with preparations containing caturaṅgula (= āragvadhā) as their chief ingredient.<sup>78</sup>

The synonyms of āragvadhā are enumerated (8.3). Its properties and the main indications for its use are mentioned (8.4–5),<sup>79</sup> followed by the way of collection and preparation of its fruits; the pulp (majjā) of the fruits is the substance employed for medicinal purposes (8.6–7).

Twelve formulations are described: one in grape juice (8.8–9ab), one in surāmaṇḍa (8.9cd), one in a sīdhu made of kola (8.9cd), one in dadhimaṇḍa (8.10), one in the juice of āmalaka (8.10), one in sauvīraka (8.10), one in a kaṣāya of trivṛt (8.11), one in a kaṣāya of bilva (8.11), one kind of leha (8.12), two kinds of ghee (8.13–14), and one kind of arīṣṭa (8.15).

Chapter nine deals with preparations containing tilvaka as their chief ingredient.<sup>80</sup>

The synonyms of tilvaka are enumerated (9.3ab). The way of preparing its root bark (mūlatvac) for medicinal use is described (9.3cd–5).

Sixteen formulations are described: five preparations in dadhi,<sup>81</sup> takra, surāmaṇḍa, urine and sīdhu (9.6),<sup>82</sup> one in sauvīraka (9.7–8ab), one kind of surā (9.8cd), one kind

of ariṣṭa (9.9–10ab), one in a kaṣāya of kampillaka (9.10cd–1 lab), three kinds of leha (9.11cd–13), and four kinds of ghee (9.14–16).

Chapter ten deals with preparations containing sudhā (= snuh) as their chief ingredient.<sup>83</sup>

Sudhā is the most drastic (tīkṣṇatama) among the purgatives; on account of its harmful effects when improperly prescribed, it is contra-indicated in particular groups of patients (10.3–4). Its indications are discussed (10.5–7ab). Two varieties are distinguished: having a small and a large number of thorns (kaṇṭaka); the latter variety is the best one for medicinal use (10.7cd–8ab). The synonyms of sudhā are enumerated (10.8cd). The way of collecting its latex (kṣīra) is dealt with (10.9).

Twenty formulations are described: a series of seven preparations in sauvīraka, tuṣodaka, juice of kola, juice of āmalaka, surā, dadhimaṇḍa, and juice of mātuluṅga (10.10–12ab), one kind of ghee (10.12cd–13), one in meat broth (10.12cd–13), one kind of pānaka (10.14), one kind of snuff (ghreya) (10.15–17), one kind of leha (10.18), one in yūṣa, one in meat broth, one in ghee (10.19ab), one with dried fish, one with dried meat (10.19cd), two in ghee (10.20), and one in surā (10.20).

Chapter eleven deals with preparations containing saptalā and śaikhinī as their chief ingredients.<sup>84</sup>

The names of these two plants are enumerated (11.3). Their properties and indications are listed (11.4). The dehusked (nistuṣīkṛta) seeds of śaikhinī and the roots of saptalā are the medicinally used parts (11.5).

Thirty-nine formulations are described: sixteen kinds of kaṣāya (11.6–8),<sup>85</sup> six kinds of oil (11.9–11),<sup>86</sup> eight kinds of ghee (11.12–15),<sup>87</sup> three kinds of leha (11.16ab),<sup>88</sup> one kind of surā (11.16cd),<sup>89</sup> one in a kaṣāya of kampillaka (11.16cd),<sup>90</sup> and four with sauvīraka and tuṣodaka (11.17).<sup>91</sup>

The first part of chapter twelve (12.1–40) deals with preparations containing dantī and dravantī as their chief ingredients.<sup>92</sup>

The synonyms of these two plants are listed (12.3). The roots of dantī and dravantī which are most suitable to medicinal use are described (12.4), followed by their way of preparation (12.5),<sup>93</sup> properties and actions (12.6).

Forty-eight formulations are described: three preparations in dadhi, takra and surā-maṇḍa (12.7ab), five with priyāla, kola, badara, pīlu and sīdhu (12.7cd),<sup>94</sup> three with a broth made with the meat of cow, deer and goat (12.8),<sup>95</sup> three with a fatty substance (sneha) (12.9–10), six kinds of leha (12.11–15), one kind of cūrṇa (12.16), one preparation in the stem (kāṇḍa) of the sugarcane (12.17), three in a mudga soup (rasa),<sup>96</sup> in a broth made with the meat of lāva or the meat of vartīraka (12.18),<sup>97</sup> three in a yavāgū,<sup>98</sup> a broth made with the meat of jāṅgala animals, and a māṣa soup (yūṣa) (12.19), one kind of utkārikā (12.20), one kind of modaka (12.21ab), one in the form of an alcoholic drink (madya) (12.21cd),<sup>99</sup> one, in the form of various sweets (bhakṣya), prepared with a kaṣāya of dantī and fried in dantī oil (12.22), one kind of cūrṇa (12.23–26), one kind of modaka (12.27–29), five kinds of āsava (12.30–34),<sup>100</sup> one in sauvīraka (12.35ab),

one in taṣodaka (12.35ab), one kind of surā (12.35cd),<sup>101</sup> one in a kaṣāya ofkampillaka (12.35cd),<sup>102</sup> and five in a ghee.<sup>103</sup>

Three hundred and fifty-five emetic and two hundred and forty-five purgative preparations have thus been described, making a total of six hundred; all these preparations are mainly based on fifteen drugs (12.41–42).

The remaining part of the chapter is devoted to a number of interconnected subjects.

Some verses deal with general principles relating to compound recipes, the interaction of drugs, their potentiation (balādhāna), etc. (12.43–50).<sup>104</sup>

The next group of verses (12.51–86) is concerned with general rules relating to the treatment of patients with emetic and purgative measures. These evacuative measures are of three types: drastic (tikṣṇa), of medium strength (madhya), and mild (mr̥du) (12.51–57). Diseases are of three types too: severe (tikṣṇa), of medium strength (madhya), and mild (mr̥du), according to the number of symptoms present (12.58).

Dosages are important in this context, which explains that the units of weight (māna, jṛamāṇa, parimāṇa) are discussed (12.87–97): 6 dhvaṃśī<sup>105</sup> = 1 marīci; 6 marīci = 1 saṣaṇḍa; 8 (rakta)saṣaṇḍa = 1 taṇḍula;<sup>106</sup> 2 taṇḍula = 1 dhānyamāṣa; 2 dhānyamāṣa = 1 yava;<sup>107</sup> 4 yava = 1 aṇḍikā; 4 aṇḍikā = 1 māṣaka,<sup>108</sup> also called hema and dhānyaka; 3 miṣaka = 1 śāṇa; 2 śāṇa = 1 draṅkṣaṇa, also called kola and badara; 2 draṅkṣaṇa = 1 karṣa,<sup>109</sup> also called suvarṇa, akṣa, biḍālapadaka, picu, pāṇitala, tinduka, and kavala-grāha; 4 karṣa = 1 palārdha (half a pala), which is also called śukti and aṣṭamikā; 2 palārdha = 1 pala,<sup>110</sup> also called muṣṭi,<sup>111</sup> prakuñca, caturthikā, bilva, ṣoḍaśikā, and āmra; 2 pala = 1 prasṛta,<sup>112</sup> also called aṣṭamāna; 4 pala = 1 añjali,<sup>113</sup> also called kuḍava;<sup>114</sup> 2 kuḍava = 1 mānikā; 4 kuḍava = 1 prastha;<sup>115</sup> 4 prastha = 1 ādhaka,<sup>116</sup> also known as pātri; 8 prastha = 1 kaṁsa; 4 kaṁsa = 1 droṇa,<sup>117</sup> also called armaṇa, nalvaṇa, kalaśa, ghaṇa, and unmāna; 2 droṇa = 1 śūrpa or kumbha; 2 śūrpa = 1 goṇī, also called khārī<sup>118</sup> and bhāra;<sup>119</sup> 32 śūrpa = 1 vāha; 100 pala = 1 tulā.<sup>120</sup>

Rules are given for the dosages of fresh and dried medicinal substances,<sup>121</sup> the ratios of liquids in relation to the drugs in a compound recipe, etc. (12.98–101).<sup>122</sup> The preparation of fat-containing compound drugs (oils, ghees) is described; this so-called snēhapīka is of three types: mr̥du (mild), madhya (medium), and khara (firm), according to the consistency of the final product; the indications of these three products of snēhapīka are mentioned (12.102–104).<sup>123</sup>

The two systems of weights and measures which are employed in medicine are referred to in a verse considered to be spurious (anārṣa) by Cakrapāṇi; the Māgadha system is said to be superior to the Kāliṅga system (12.105).<sup>124</sup>

## Chapter 8 Siddhisthāna

Chapter one, called kalpanāsiddhi (the successful application of therapeutic measures), begins with twelve questions of Agniveśa on the successful application of the fivefold treatment called pañcakarman (1.3–5). Ātreya expounds, in answer to these questions, the general rules to be observed in pañcakarman.<sup>1</sup>

Sneha should be applied for a minimum of three and a maximum of seven days (1.6cd–7ab);<sup>2</sup> the effects of sneha are mentioned (1.7cd). The effects of sveda are described (1.8ab).<sup>3</sup> The correct application of emetics and purgatives is discussed; the preliminary diet; after-treatment; the signs of adequate, deficient and excessive dosages;<sup>4</sup> the degree of action of an emetic drug is inferior, moderate or superior according to the number of times a patient will vomit: four, six or eight times; the number of times a patient will open his bowels and the amount of the stools determine these degrees in a purgative drug: ten, twenty or thirty times, and an amount of faeces passed of two, three or four prastha (1.8cd–21).

The correct application of anuvāsana (an evacuative, oleaginous enema) and nirūha (a medicated, non-oleaginous enema) is described; the preliminary diet and after-treatment; the seasons and parts of day and night which are most suitable; the succession of the two types of enema;<sup>5</sup> the number of times a nirūha should be administered in kapha, pitta and vāta disorders: one or three, five or seven, nine or eleven times respectively (1.25); the effects of the two types of enema (1.27–31);<sup>6</sup> their indications (1.32–34)<sup>7</sup> and contra-indications (1.36–37); the signs of adequate, deficient and excessive application of enemas; three courses of treatment with enemas (basti): karma-, kāla-, and yogabasti; karmabasti consists of one nirūha to begin with, followed by twelve nirūhas and twelve anuvāsanas, and five nirūhas at the end;<sup>8</sup> kālabasti is a course of one nirūha, six nirūhas and six anuvāsanas, alternately administered, and three nirūhas at the end; yogabasti consists of one nirūha, three nirūhas which alternate with three anuvāsanas, and one nirūha at the end (1.38–50ab).

The correct application of śirovirecana (evacuation of the head) is described; the signs of adequate, deficient and excessive treatment; its indications; rules for the period preceding this type of treatment and during treatment (1.50cd–55ab). Some complications due to faulty application of the described therapeutic measures are dealt with (1.55cd–60ab).

Chapter two, called pañcakarmīyasiddhi, is concerned with the types of persons suitable and unsuitable to treatment with pañcakarman (2.4–7), contra-indications and in-

dications for treatment with emetics ((2.8–10)<sup>9</sup>, purgatives (2.11–13),<sup>10</sup> anuvāsana<sup>11</sup> and nirūha (2.14–19),<sup>12</sup> and śirovirecana (2.20–22).<sup>13</sup>

Chapter three, called bastisūtrīyasiddhi, begins with ten questions of Agniveśa concerning the application of enemas (basti) (3.3–5).<sup>14</sup>

The subjects dealt with are: the material out of which the tube (nala) of the clyster should be made (3.7);<sup>15</sup> its measurements for various age groups; the places for the three rings (karṇikā) on the tube (3.8–10ab);<sup>16</sup> the requirements for a suitable pouch (basti) (3.10cd–11);<sup>17</sup> substitutes for the pouch (3.12ab);<sup>18</sup> the proper way of administering an enema (3.12cd–26ab);<sup>19</sup> the first enema drags down vāta, the second one pitta, the third one kapha (3.26cd); after-treatment (3.27–30ab); dosages in various conditions (3.30cd–31ab) and age groups (3.31cd–33ab);<sup>20</sup> the requirements for the couch the patient is lying on (3.33cd–34ab); diet (3.34cd–35ab); formulations for medicated enemas (3.35cd–71).<sup>21</sup>

Chapter four, called snehavyāpatsiddhi, gives a number of formulations for snehabasti (= anuvāsana) (4.4–24).<sup>22</sup> The next part is devoted to six disorders (āpad, vyāpad) arising from faulty application<sup>23</sup> of a snehabasti;<sup>24</sup> the enema may be covered (āvṛta) by vāta, pitta, kapha, an excess of ingested food (atyanna), or faeces, or it may have been applied on an empty stomach (abhukta); the symptoms and treatment of these disorders are described (4.25–40). A number of rules relating to the administration of a snehabasti and nirūha are formulated (4.41–51).<sup>25</sup> A variety of snehabasti, called mātrābasti, is described (4.52–54).<sup>26</sup>

Chapter five, called netrabastivyāpatsiddhi, is concerned with types of tube (netra) and pouch (basti) to be avoided, and the treatment of disorders caused by an inappropriate tube or faulty handling of the tube (netravāyāpad).<sup>27</sup>

Eight defects of the tube and their untoward effects are enumerated (5.4–5),<sup>28</sup> eight defects of the pouch and their effects (5.6–7),<sup>29</sup> eight ways of faulty handling of the tube, their effects, and the treatment of the disorders resulting (5.8–18).<sup>30</sup>

Chapter six, called vamanavirecanavyāpatsiddhi, discusses the proper administration (samyakkṛtayaoga) of emetics and purgatives, defective procedures, and the treatment of the disorders resulting from these defects (6.3).

Three chief seasons and three intermediate (sādhāraṇa) ones should be taken into consideration for the purpose of purificatory measures (i.e., emesis and purgation). The three chief seasons are grīṣma (summer), varṣāḥ (the rainy season) and himāgama (winter); the intermediate seasons are prāvṛṣ (the early rains), etc.<sup>31</sup> Prāvṛṣ consists of the months called Śuci (= Āṣāḍha) and Nabha (= Śrāvaṇa, śarad of Ūrja (= Kārttika) and Saha (= Mārgaśīrṣa), vāsanta of Tapasya (= Phālguna) and Madhu (= Caitra) (6.4–6).<sup>32</sup>

Numerous rules are formulated concerning the proper management of pañcakaṁman and the various complications which may arise.

Subjects dealt with are: sneha facilitates the removal of the doṣas from the body, in the same way as water can easily be removed from a vessel after greasing it; sveda

makes the fixed (sthira) doṣas flow out (viṣyandayati) of the body after application of sneha, as fire acts upon damp wood; śodhana (purification) eliminates the impurities (mala = doṣa), as dirt is removed from a cloth by water (6.11–13); a purificatory drug should not be taken during a disorder of digestion (ajīrṇa) (6.14); characteristics of a proper dose (6.15–17); the preparatory diet (6.18–19ab); the signs of proper elimination (6.19cd–20); removal of the remains of too large a dose (6.21–22ab);<sup>32</sup> the treatment to be applied when the signs of proper digestion of the drug are not observed (6.23); after-treatment (6.24); the treatment to be applied when kapha and pitta are only slightly eliminated (6.25);<sup>34</sup> signs indicating proper and improper digestion of the drug (6.26–27); types of improper administration (6.28); ten disorders (vyādh) due to improper purification are enumerated:<sup>35</sup> ādhmāna (tympanitis), parikartikā,<sup>36</sup> srāva,<sup>37</sup> hrṣgraha,<sup>38</sup> gātragraha,<sup>39</sup> jīvādāna (bleeding), vibhramśa,<sup>40</sup> stambha (stiffness), upadrava (complications), and klama (exhaustion) (6.29–30); cases of wrong application of purificatory measures and their treatment (6.31–57);<sup>41</sup> the symptoms and treatment of ādhmāna (6.58–60),<sup>42</sup> parikartikā (6.61–67),<sup>43</sup> parisrāva (6.68–70),<sup>44</sup> hrṣgraha (6.71–75),<sup>45</sup> aṅgagraha (= gātragraha) (6.76–77), jīvādāna (6.78–84),<sup>46</sup> the three types of vibhramśa: gudabhramśa (prolapse of the rectum), saṁjñānāśa (loss of consciousness), and a syndrome characterized by kaṇṭhū (itching) and other signs (6.85–87), stambha (6.88–89),<sup>47</sup> upadrava (6.90–91),<sup>48</sup> and klama (6.92–93).<sup>49</sup>

Chapter seven, called bastivyāpatsiddhi, deals with the disorders caused by the improper administration of enemas.

Twelve of these disorders (vyāpad) are enumerated: deficient application (ayoga), over-application (atiyoga), klama (exhaustion),<sup>50</sup> ādhmāna (tympanitis), hikkā (hiccup), hr̥prāpti,<sup>51</sup> ūrdhvatā (moving in an upward direction),<sup>52</sup> pravāhikā,<sup>53</sup> śiro'rti (headache), aṅgārti (pains in the whole body), parikarta,<sup>54</sup> and parisrava<sup>55</sup> (7.5–6).

The causes, symptoms and treatment of these disorders are described: ayoga (7.7–11), atiyoga (7.12–14), klama, due to a remnant of āmadoṣa (7.15–20),<sup>56</sup> ādhmāna (7.21–26),<sup>57</sup> hikkā (7.27–29), hr̥dayaghaṭṭana (= hr̥prāpti; 7.30–31), ūrdhvatā (7.32–39), pravāhikā (7.40–42),<sup>58</sup> śiro'rti (7.43–46), aṅgārti (7.47–53), parikartikā (7.54–57), parisrava (7.58–62).<sup>59</sup> The composition of drastic (tīkṣṇa) and mild (mṛdu) enemas is dealt with (7.63).

The chapter ends with some general statements on the action of enemas (7.64–65).

Chapter eight, called prāśṭayogīyasiddhi, begins with a number of formulations (yoga) for enemas, expressed in the unit of weight called prasṛta.<sup>60</sup> These enemas are especially suitable to delicate (sukumāra) patients and those suffering from the bad effects of improperly applied evacuative measures (8.3–18).<sup>61</sup>

One of the formulations is called pañcatiktanirūha (8.8–9ab).<sup>62</sup>

The second part deals with diarrhoea (atisāra) as a disorder arising from the injudicious administration of enemas. Six main types are distinguished: accompanied by āma, or pakva (i.e., devoid of āma) and accompanied by faeces, vāta, blood, pitta or kapha; thirty subtypes are distinguished according to the combinations of doṣas involved. This diarrhoea may lead to various complications (upadrava), such as śūla



(piercing pain), pravāhikā, ādhmāna (tympanitis), parikarti, aruci (loss of appetite), jvara (fever), tṛṣṇā (thirst), uṣṇa (heat), dāha (a burning sensation), mūrchā (fainting), etc. (8.19–22). The treatment of all the types of diarrhoea is discussed (8.23–45).

Chapter nine, called trimarmīyasiddhi, deals with disorders of the three (main) vital organs (trimarman).<sup>63</sup>

The total number of vital spots (marman) in trunk (skandha) and extremities (śā-khā) is one hundred and seven.<sup>64</sup> Excruciating (samadhika) pain is the result from any injury to them, because of their connection with the cetanā (the principle of consciousness). Those located in the trunk are more important than those located in the extremities, because the latter are dependent on the former. The most important ones are heart (hṛd), urinary bladder (basti) and head (śiras) (9.3).

In the heart are established, like the spokes (ara) in the nave (nābhi) of a wheel, the ten dhmanīs,<sup>65</sup> prāṇa and apāna,<sup>66</sup> manas, buddhi, cetanā, and the mahābhūtas.<sup>67</sup> In the head are located, as the rays of the sun, the senses and the channels carrying the (impressions of) the senses and the prāṇas. The bladder, situated in the midst of sthūlaguḍa (rectum), muṣkasevanī (the raphe of the perineum) and the tubes (nāḍī) transporting semen and urine, is the container (ādhāra) for the urine and the resort (pratiṣṭhā) of all the channels transporting the watery element, as the sea is the resort for all the rivers. The body is pervaded, like the sky by the rays of the sun, by numerous channels, known as marman, which are rooted in these (three vital organs). The latter should therefore be duly protected from external injury and the doṣas (9.4–5).

The symptoms of injury to heart, head and bladder are enumerated (9.6). The three vital organs should be protected in particular from vāta, which causes agitation (samudīraṇa) of pitta and kapha and constitutes the root of the prāṇas; enemas are for that reason the best therapeutic measures for protection of the vital organs (9.7). Some recipes are given (9.8). The importance of protection of the vital organs as the seats of the prāṇas is stressed once more (9.9–10).

The next part of the chapter is devoted to disorders of the three vital organs which have not already been dealt with in the trimarmīya chapter of the Cikitsāsthāna<sup>68</sup> (9.11).

The first diseases to be described, along with their treatment, are apatantraka<sup>69</sup> and apatānaka (9.12–20),<sup>70</sup> followed by tandrā<sup>71</sup> (9.21–24).<sup>72</sup>

Thirteen disorders affecting the urine (mūtradoṣa)<sup>73</sup> are enumerated first (9.25–26)<sup>74</sup> and then described, along with their treatment: mūtraukasāda<sup>75</sup> (9.27–28),<sup>76</sup> mūtrajāthara<sup>77</sup> (9.29–31),<sup>78</sup> mūtrakṛcchra<sup>79</sup> (9.32), mūtrotsaṅga<sup>80</sup> (9.33–34ab),<sup>81</sup> mūtrasaṁkṣaya<sup>82</sup> (9.34cd),<sup>83</sup> mūtrāṭīta<sup>84</sup> (9.35),<sup>85</sup> aṣṭhīlā<sup>86</sup> (9.36),<sup>87</sup> vātabasti (9.37),<sup>88</sup> uṣṇavāta (9.38),<sup>89</sup> vātakuṇḍalikā (9.39–40),<sup>90</sup> mūtragranthi (9.41–42ab),<sup>91</sup> vid(vi)-ghāta<sup>92</sup> (9.42cd–43), and bastikuṇḍala<sup>93</sup> (9.44–46). Doṣic varieties are described,<sup>94</sup> as well as curable and incurable conditions<sup>95</sup> (9.47–49ab).

These disorders should be treated with measures removing mūtrakṛcchra; in all cases, basti and uttarabasti should be applied (9.49cd–50ab).<sup>96</sup>

The instrument employed in uttarabasti (urethral douche) is described and the technique of its application (9.50cd–57),<sup>97</sup> followed by the preparation and application of

suppositories (varti), to be inserted into urethra (mūtranāḍī) or anus (pāyu) (9.58–61);<sup>98</sup> rules are given for the use of uttarabasti and suppositories in women<sup>99</sup>, as well as for the application of uttarabasti as a vaginal douche (9.62–70ab).

The third group of diseases to be discussed are those affecting the head. Five diseases are described, together with their treatment: śaṅkhaka<sup>100</sup> (9.71–73),<sup>101</sup> ardhā-vabhedaka<sup>102</sup> (9.74–78),<sup>103</sup> sūryāvarta<sup>104</sup> (9.79–83),<sup>105</sup> anantavāta<sup>106</sup> (9.84–86ab),<sup>107</sup> and śīraṅkampa (trembling of the head)<sup>108</sup> (9.86cd–87).

Diseases of the head should be counteracted by means of nasal therapy (nastaḥkarman), because the nose is the gateway to the head (9.88).<sup>109</sup>

Five types of nastaḥkarman are distinguished: nāvana,<sup>110</sup> avapīḍa,<sup>111</sup> dhmāpana,<sup>112</sup> dhūma,<sup>113</sup> and pratimarśa.<sup>114</sup> Nāvana is of two varieties: snehana (oleaginous) and śodhana (purificatory);<sup>115</sup> avapīḍa is śodhana or stambhana;<sup>116</sup> dhmāpana consists of the blowing (ādhmāpana) of a powdered drug (cūrṇa) into the nose; dhūma is of three varieties, as described earlier;<sup>117</sup> pratimarśa performs both functions.<sup>118</sup> Nasal therapy is thus of three kinds: recana (evacuative), tarpaṇa<sup>119</sup> and śamana<sup>120</sup> (9.89–92).<sup>121</sup>

Śirovirecana is recommended in kapha disorders of the head, tarpaṇa in vāta disorders, śamana in raktapitta and related disorders, dhmāpana and dhūma whenever required (9.93–95).<sup>122</sup>

The proper procedures for these types of nasal therapy are described, together with their indications and contra-indications (9.96–117).<sup>123</sup>

Chapter ten, called bastisiddhi, discusses indications and contra-indications for various types of enema (10.4–12); substances and drugs to be used (10.13–17); formulations for enemas to be employed in disorders caused by vāta, pitta, kapha (10.18–24); formulations for enemas which purify the pakvāśaya (10.25–27), promote the formation of semen and muscular tissue (10.28–29), have a sāṅgrāhika action<sup>124</sup> (10.30–31), are active against parisrāva<sup>125</sup> (10.32), dāha (a burning sensation) (10.33), parikarta<sup>126</sup> (10.34–35), pravāhaṇa<sup>127</sup> (10.36), disorders resulting from over-application of enemas (10.37–38ab), jīvādāna (bleeding) (10.38cd–42), raktapitta and prameha (10.43), and various diseases (10.44–45). The total number of formulations described in this chapter is thirty-seven (10.46–48).

Chapter eleven, called phalamātrāsiddhi,<sup>128</sup> contains a discussion among a group of sages about the most suitable fruit (phala) to be used in an āsthāpana.<sup>129</sup>

The sages mentioned as members of the assembly are Asita, Bhṛgu, Gautama, Kāpya, Kauśika, Pulastya, Śaunaka and others.<sup>130</sup>

Śaunaka argues that jīmūta<sup>131</sup> is the best one; Vāmaka prefers kaṭutumba,<sup>132</sup> Gautama has a preference for dhāmārgava,<sup>133</sup> Baḍīśa for kuṭaja,<sup>134</sup> Kāpya for kṛtavedhana.<sup>135</sup> Bhadrāśaunaka restricts himself to rejecting Kāpya's opinion (11.3–9).

Ātreya replies to these claims that since there is no drug possessing merits or defects only, each one should be examined with regard to the relative preponderance of its merits; garāgarī<sup>136</sup> is useful in kuṣṭha, ikṣvāku in (pra)meha, the seeds of kuṭaja in hṛdroga, koṭhaphala<sup>137</sup> in pāṇḍu(roga), kṛtavedhana in udara, and madana fruits<sup>138</sup> in all diseases. The properties and actions of the fruits of madana are enumerated (11.10–

14).

Ātreya explains, on the request of the sages, how an enema, which displays its actions in the lower part of the trunk, is able to purify the whole body (11.15–18).

The next section of the chapter is devoted to the treatment of elephants, camels, cattle, horses, sheep and goats by means of enemas. The material for the pouch, the length of the tube and the dosages for a nirūha are specified (11.19–22), followed by the names of the drugs to be employed (11.23–26).

The last part of the chapter is concerned with persons who are always ill, the reasons for this, and the treatment of these groups of persons: priests (śrotriya, dvija), royal servants (rājasevaka, nṛpopasevin), courtezans (veśyā, pañāṅganā) and merchants (paṇyājīvin) (11.27–36).

Chapter twelve, called uttarabastisiddhi,<sup>139</sup> is about the after-treatment of patients to whom enemas have been administered (12.3–9).

Eight patterns of behaviour should be avoided during the period of convalescence: loud speech (uccairbhāṣya), being jolted in vehicles (rathakṣobha), making too long walks, a sedentary life, eating before the previous meal has been digested, eating unwholesome foods, sleeping by day, and sexual intercourse; the painful conditions and disorders arising from these types of behaviour in general are mentioned (12.10–12). The symptoms brought about by each of these eight patterns of behaviour are listed (12.13–14) and their treatment is discussed (12.15).

A series of twelve bastis (enemas) which are yāpana<sup>140</sup> in their action are described (12.16);<sup>141</sup> one more enema is added, in which the contents of raw chicken's eggs (kukkutāṇḍarasa), used in the last formula of the series of twelve, are replaced by those of the eggs of the pea-hen, gonarda,<sup>142</sup> goose (haṁsa), or sārasa<sup>143</sup> (12.17).<sup>144</sup>

A large number of other yāpana enemas containing animal products are described:<sup>145</sup> a series of twenty enemas with viṣkira birds,<sup>146</sup> thirty with pratuda birds,<sup>147</sup> twenty-nine with prasaha mammals and birds,<sup>148</sup> twenty-seven with aquatic (ambucara) birds,<sup>149</sup> nine with fish and other aquatic animals, ten with crabs (karkaṭaka) and other animals,<sup>150</sup> seventeen with animals of the mṛga group,<sup>151</sup> nineteen with viṣkira birds, ten with ānūpa animals,<sup>152</sup> and fourteen with bhūśaya animals<sup>153</sup> (12.18).

A series of twenty-nine snehabastis,<sup>154</sup> also yāpana in action, is described; they are characterized as excellent aphrodisiacs (vṛṣya); the potency (vīrya) of these substances will be increased by boiling them a hundred or thousand times, dependent on the funds available (12.19). The total number of formulations comes up to two hundred and sixteen<sup>155</sup> (12.24–28).

The actions of yāpana enemas are mentioned (12.20–22), together with what ought to be avoided by patients to whom they are administered (12.23). Some complications that may result from excessive application of yāpana enemas are dealt with, together with their treatment (12.29–32ab).

Thus ends the Siddhīsthāna (12.33cd–34ab).

Agniveśa's treatise in one hundred and twenty chapters, delivered by Ātreya, has been completed now. Its study will lead to longevity, fame, health, etc. (12.34cd–36ab).

Agniveśa's treatise, as redacted by Caraka, found to be incomplete by one-third,

was fully restored by Dṛḍhabala (12.36cd–40ab).

The work is adorned with the following thirty-six tantrayuktis: <sup>156</sup> adhikaraṇa, <sup>157</sup> yoga, <sup>158</sup> hetvartha, <sup>159</sup> padārtha, <sup>160</sup> pradeśa, <sup>161</sup> uddeśa, <sup>162</sup> nirdeśa, <sup>163</sup> vākyaśeṣa, <sup>164</sup> prayojana, <sup>165</sup> upadeśa, <sup>166</sup> apadeśa, <sup>167</sup> atideśa, <sup>168</sup> arthāpatti, <sup>169</sup> nirṇaya, <sup>170</sup> prasaṅga, <sup>171</sup> ekānta, <sup>172</sup> anekānta, <sup>173</sup> apavarga, <sup>174</sup> viparyaya, <sup>175</sup> pūrvapakṣa, <sup>176</sup> vidhāna, <sup>177</sup> anumata, <sup>178</sup> vyākhyāna, <sup>179</sup> saṁśaya, <sup>180</sup> atītāvekṣā, <sup>181</sup> anāgatāvekṣā, <sup>182</sup> svasaṁjñā, <sup>183</sup> ūhya, <sup>184</sup> samuccaya, <sup>185</sup> nidarśana, <sup>186</sup> nirvacana, <sup>187</sup> saṁniyoga, <sup>188</sup> vikalpana, <sup>189</sup> pratyutsāra, <sup>190</sup> uddhāra, <sup>191</sup> and saṁbhava <sup>192</sup> (12.40cd–45ab). <sup>193</sup>

The usefulness of these tantrayuktis is explained (12.45cd–49).

Careful study of the entire text is warmly recommended (12.51).

An interpolated verse refers to an Uttara(tantra) of the *Carakasamhitā* with a detailed exposition on the merits (guṇa) and blemishes (doṣa) of a tantra (12.50).

Three more interpolated verses describe the *Carakasamhitā* as a treatise containing twelve thousand (verses and prose passages) (12.52–54).

## Chapter 9

### General features

The *Carakasamhitā* consists of 120 chapters<sup>1</sup> (adhyāya), arranged in eight sections (sthāna).<sup>2</sup>

The names of the sections are Sūtra-<sup>3</sup> or Ślokaśthāna<sup>4</sup> (30 chapters), Nidānaśthāna (8 chapters), Vimānaśthāna<sup>5</sup> (8 chapters), Śāṅgīraśthāna<sup>6</sup> (8 chapters), Indriyaśthāna<sup>7</sup> (12 chapters), Cikitsāśthāna<sup>8</sup> (30 chapters), Kalpasthāna<sup>9</sup> (12 chapters), and Siddhiśthāna (12 chapters).

The same eight sections, in the same order, are found in the *Bhelasamhitā*; they also form part of the *Kāśyapaśamhitā*, where the order of Kalpa- and Siddhiśthāna is reversed.

The same number of 120 chapters is a characteristic of the *Bhelasamhitā*, *Kāśyapaśamhitā* (without the Khilasthāna), *Suśrutasaṃhitā* (without the Uttaratantra), and *Aṣṭāṅgaḥṛdayasaṃhitā*.

The total number of chapters of the *saṃhitā*, the names and the order of the sections, and the number of chapters in each section are recorded in a table of contents (Sū.30.33–35).

The Sūtraśthāna is divided into seven groups of four chapters (catuṣka) and two summarizing chapters (saṃgrahādhyāyas).<sup>10</sup> The names of the catuṣkas are: bheṣaja-,<sup>11</sup> bheṣajāśraya-,<sup>12</sup> or auśadhacatuṣka<sup>13</sup> (Sū.1–4); svastha-,<sup>14</sup> svasthavṛtta-,<sup>15</sup> or svāsthyaṅgīkacatuṣka<sup>16</sup> (Sū.5–8); nirdeśa-<sup>17</sup> or nairdeśikacatuṣka<sup>18</sup> (Sū.9–12); kalpanā<sup>19</sup> or prakalpanācatuṣka<sup>20</sup> (Sū.13–16); roga-<sup>21</sup> or rogādhyāyacatuṣka<sup>22</sup> (Sū.17–20); yojanācatuṣka<sup>23</sup> (Sū.21–24); annapāna-,<sup>24</sup> annapānika-,<sup>25</sup> or annaviniścaya-catuṣka<sup>26</sup> (Sū.25–28).

Similar divisions are not found in the other sections, but the first two chapters of the Cikitsāśthāna are subdivided into four pādas each.<sup>27</sup>

The total extent of the *Carakasamhitā* is said to be 12,000 units (verses and passages in prose) in a verse at the end of the treatise,<sup>28</sup> which is probably spurious.<sup>29</sup> The actual number of verses is 9,035; the prose passages amount to a number of 1,111.<sup>30</sup>

Chapters written in a mixture of verse and prose are frequent, particularly in the Sūtraśthāna. Chapters four, eight, twelve, fifteen, nineteen, twenty, twenty-five and twenty-nine of the Sūtraśthāna, the Nidānaśthāna, the Vimānaśthāna, and chapters three to eight of the Śāṅgīraśthāna are mainly in prose; several chapters of the Sūtraśthāna, chapters four to twelve of the Indriyaśthāna, chapters two to thirty of the Cikitsāśthāna, chapters two to twelve of the Kalpasthāna, chapters one, three to eight, nine and eleven of the Siddhiśthāna are mainly in verse.

References to other sections and chapters are not rare at all in the *Carakasamhitā*.<sup>31</sup>

The titles of the chapters are either based on their first words or related to their subject matter.<sup>32</sup>

Metres used in the verses are anuṣṭubh, āryā, gīti, indravamśā, indravajrā, kusumitalatāvellitā, puṣpitāgrā, rucirā (prabhāvatī), svāgatā, udgīti, upajāti, upendravajrā, vamśasthā, and viyoginī.<sup>33</sup>

Remarkably few studies are available on linguistic peculiarities of the *Carakasamhitā*.<sup>34</sup> An article by M.M. Deshpande deals with the bhinnakartṛka -tum infinitive,<sup>35</sup> found only in parts of the *Carakasamhitā* not redacted by Drḍhabala.<sup>36</sup> Two articles on the language of the *Carakasamhitā* were published by R.P. Das, who discusses Caraka's compounds, the anomalous removal of hiatus, unusual sandhi, constructions with yasya and yasyāḥ, the use of certain secondary suffixes, unusual genders of nouns, some peculiar words, etc.<sup>37</sup>

The style of the *Carakasamhitā* is much more developed than that of the *Bhela-samhitā*, the contents of which resemble it in many respects. P.V. Sharma<sup>38</sup> pointed to the remarkable differences when the vātakalākalīya chapters of both treatises<sup>39</sup> are compared. He also called attention to a number of skillful and beautiful verses.<sup>40</sup>

The *Carakasamhitā* is primarily a treatise on kāyacikitsā,<sup>41</sup> which for that reason occupies the first place in the list of the eight divisions (aṅga) of āyurveda (Sū.30.28).<sup>42</sup> Passages indicating that other subjects, such as śalya, śālākya, etc., do not belong to its domain are found at several places,<sup>43</sup> particularly in the Cikitsāsthāna. Specialists in surgery are referred to as dhānvantariyāḥ,<sup>44</sup> śalyavidāḥ,<sup>45</sup> śalyahartāraḥ,<sup>46</sup> vranacintakas,<sup>47</sup> and kṣāratantravidāḥ.<sup>48</sup> Specialists in śālākya were also known.<sup>49</sup>

Consequently, by far the larger part of the *Carakasamhitā* is devoted to internal medicine (kāyacikitsā). Surgical subjects, not altogether absent, are discussed in chapter twenty-five, subjects belonging to śālākya in chapter twenty-six of the Cikitsāsthāna. Kaumārabhr̥tya is dealt with in Śāfirasthāna 2-4, 6 and 8, bhūtavidyā in Nidānasthāna 9-10 and Cikitsāsthāna 9-10, agadatantra in chapter twenty-three of the Cikitsāsthāna, rasāyana in chapter one of the Cikitsāsthāna, vājīkaraṇa in chapter two of the Cikitsāsthāna.<sup>50</sup>

This arrangement of the contents reflects a general feature of the early medical works and many later treatises,<sup>51</sup> namely, that the eight branches of āyurveda are referred to as a classificatory scheme, without actually being made the basis of a corresponding disposition of the material.<sup>52</sup>

### Contributions of Agniveśa

Elements belonging to the oldest layer of the *Carakasamhitā*, i.e., the *Agniveśatantra*, are, according to P.V. Sharma:<sup>53</sup> the names of chapters based on their first words;<sup>54</sup> the expression 'iti ha smāha bhagavān ātreyaḥ' at the beginning of a chapter; the use of saumya with reference to Agniveśa as a pupil;<sup>55</sup> the use of the term skandha;<sup>56</sup> passages calling to mind the style of some Upaniṣads;<sup>57</sup> the mixture of prose and verse;<sup>58</sup> the discussions among groups of sages;<sup>59</sup> the summary in verse at the end of a chapter; the use of the word upaniṣad;<sup>60</sup> the references to Kāmpilya and Pāñcāla; the importance of the term catuṣpādā;<sup>61</sup> the term ṣoḍaśakala;<sup>62</sup> the version of Sāṅkhya acknowledge-

ing twenty-four tattvas;<sup>63</sup> the doctrine of bhūtānupraveśa;<sup>64</sup> the traces of an early type of Yoga, different from the system represented by the *Yogasūtras*; the doctrine of the three doṣas; the foremost place of vāyu among the three doṣas;<sup>65</sup> the description of five kinds of vāyu;<sup>66</sup> the descriptions of the buddhīndriyas, karmendriyas and manas; the description of the heart;<sup>67</sup> the ten prāṇāyatanas;<sup>68</sup> some elements relating to bhūtaavidyā;<sup>69</sup> the comparison of ojas and madhu (honey);<sup>70</sup> the importance of rasa;<sup>71</sup> the concept of the three eṣāṇas;<sup>72</sup> the concepts of sat and asat;<sup>73</sup> the concept of paraloka, defended against heretical views;<sup>74</sup> the transmission of a science from the gods to human sages;<sup>75</sup> one hundred years as the maximum span of human life;<sup>76</sup> the concept of a tṛtīyā jātiḥ.<sup>77</sup>

### Contributions of Caraka<sup>78</sup>

The determination of Caraka's contributions to the *Agniveśatantra* depends on one's views concerning the dates of Agniveśa and Caraka, the type of relationship between their works, etc. In spite of the almost unsurmountable problems, some scholars made serious attempts at identifying features and elements that may be due to Caraka.

P.V. Sharma<sup>79</sup> expressed the opinion that Agniveśa's treatise, written in sūtra style, was enlarged with Caraka's annotations (bhāṣya).<sup>80</sup> In his view,<sup>81</sup> the *Agniveśatantra* may have resembled the *Bhelaśaṃhitā*. He is inclined to attribute to Caraka passages in prose and verse that are composed in a mature style.<sup>82</sup>

P.V. Sharma<sup>83</sup> and Sūramcandra<sup>84</sup> claim that Caraka made Agniveśa's tantra into a saṃhitā consisting of sūtra, bhāṣya and saṃgraha. The activities of such a reviser (saṃskartar) are outlined by Dṛḍhabala (Sū.12.36cd–37ab).

Some regard the verses, introduced by bhavati cātra,<sup>85</sup> bhavataś cātra,<sup>86</sup> or bhavanti cātra,<sup>87</sup> as deriving from Caraka, while others consider them forming part of the original *Agniveśatantra*.<sup>88</sup> This type of stanza is often found towards the end of a chapter, preceding verses, introduced by tatra ślokaḥ, ślokau or ślokāḥ, which give a summary of the contents.<sup>89</sup> The latter type is usually regarded as forming part of Caraka's text.<sup>90</sup>

Cakrapāṇidatta, undoubtedly preceded by earlier commentators, distinguished a type of statement, called pratisaṃskartṛsūtra, thought to derive from the pen of a reviser (pratisaṃskartar), who, though not mentioned by name, is probably Caraka.<sup>91</sup>

Apart from the pratisaṃskartṛsūtra, Cakra distinguished three other types, called gurni-,<sup>92</sup> śiṣya-<sup>93</sup> and ekīyasūtra<sup>94</sup> respectively.<sup>95</sup>

More specific contributions of Caraka are, according to P.V. Sharma: the elaboration of the discussions among groups of sages;<sup>96</sup> yukti as a pramāṇa; yuktivyapāśraya methods of treatment; the importance of parīkṣā and jñāna;<sup>97</sup> the description of the descent of āyurveda (Sū.1);<sup>98</sup> various types of sveda (Sū.14);<sup>99</sup> the importance of saṃśamana and saṃśodhana (Sū.22 and 23);<sup>100</sup> the description of new diseases;<sup>101</sup> the description of the eight branches of āyurveda (Sū.30);<sup>102</sup> the introduction of articles of food growing in the northwestern regions of India.<sup>103</sup>

The concepts related to those of Sāṃkhya, Nyāya and Vaiśeṣika are generally assumed to belong to Caraka's contributions.<sup>104</sup>

## False attributions to Caraka

Caraka became a revered authority to whom in later times much was attributed that is completely absent from the treatise going under his name.

Caraka's name is associated with nāḍīśāstra in Raghunātha Paṇḍita's *Nāḍījñānavidhi*<sup>105</sup> and Ṭoḍara's *Āyurvedasaṅkhyā*.<sup>106</sup>

A number of texts regard Caraka as an authority on rasaśāstra. Raghunātha Paṇḍita's *Cikitsāmañjarī* contains a series of rasayogas said to belong to the domain of Caraka.<sup>107</sup> Iatrochemical formulae attributed to Caraka in other treatises are: a śivagutikā,<sup>108</sup> somanātharasa,<sup>109</sup> and varuṇādyalauha.<sup>110</sup>

Recipes ascribed to Caraka which contain ingredients added to the materia medica in post-classical times are also found. An example is kuṅkumādicūrṇa.<sup>111</sup>

Ṭoḍara's *Āyurvedasaṅkhyā* attributes part of the description of the kalās, found in the *Suśrutasamhitā*, to Caraka.<sup>112</sup>

## The text of the Carakasamhitā

P. Cordier is one of the early scholars who noticed that the text of the *Carakasamhitā* must have been subject to considerable variations, as is obvious from quotations found in commentaries.<sup>113</sup>

The text of the *Carakasamhitā* presents a number of problems which deserve serious attention. A critical edition, highly desirable, does not exist so far.<sup>114</sup> References and quotations in commentaries testify that once several recensions were known which differed in their readings. Commentators also express their views on the genuineness or spuriousness of particular verses or groups of verses.<sup>115</sup> Later works quoting Caraka contain verses which deviate from the edited text<sup>116</sup> or are not found there at all.<sup>117</sup> Some verses belonging to the text of the *Carakasamhitā* as accepted by Cakrapāṇidatta are attributed to other authorities by later authors.<sup>118</sup> The text of many editions incorporates numerous verses, placed between brackets, which are probably interpolations.<sup>119</sup>

Other passages regarded as interpolations are, for example, Sū.17.41-44, 25.48-49, Vi.3.39-40, Vi.7.8-30.<sup>120</sup>

P.V. Sharma proposed a number of emendations of Yādavaśarma's text of the *Carakasamhitā*.<sup>121</sup> His corrections relate to: Sū.1.57 (sāttvika instead of mānasa); 1.115a (vamaṇe 'śmantakakṣīram instead of vamaṇe 'śmantakam vidyāt); 1.122a (the edited version is not correct); 3.15 (sakuṣṭhā instead of sakuṣṭhāt);<sup>122</sup> 4.14 (yaṣṭika should be ṣaṣṭika; cf. 4.16);<sup>123</sup> 5.12 (śāliṣaṣṭikamudgāṃś ca instead of ṣaṣṭikāṇ chālimudgāṃś ca); 10.4 (upakrānta is preferable to anuṣṭhita); 13.72ab (these pādas ought to be deleted, because they are also found at Ci.15.202ab);<sup>124</sup> 14.72 (snehasamiddhasya is preferable to snehasamiddhasya); 18.36 (upakrānta instead of anukrānta); 21.12 (rūkṣam udvartanam instead of rūkṣasyodvartanam; snānābhyāsaḥ instead of snānasyābhyāsaḥ); 21.32 (rūkṣam udvartanam instead of snigdham udvartanam);<sup>125</sup> 21.50 (āśīnaṃ pracalāyitam instead of āśīnapracalāyitam);<sup>126</sup> 22.8 (kr̥tākr̥tātīkr̥tānām is preferable to kr̥tākr̥tātīvrttānām); 22.41 (tadaśadhānāṃ rogānām instead of tadaśadhānāṃ dhātūnām);<sup>127</sup> 25.38 (sthāvarasnehānām instead of



sthāvarajātānām snehānām); 25.39 (ālukaṃ kandaūām should precede nikucaṃ phalānām); 25.40 (lāmajakoṣṭre is preferable to lāmajjaḥkoṣṭram and nirvṛtīḥ puṣṭikarāṇām to nirvṛtīḥ puṣṭikarāṇām; the second niḥsaṃśayakarāṇām should be replaced by nirbhayakarāṇām); 26.3 (Hiraṇyākṣa Kuśika should be substituted for Hiraṇyākṣa Kauśika); 26.43(4) (mohayati instead of mohalyanti); 26.84 (sarṣapatailabhrāṣṭān instead of sarṣapatailabhrāṣṭān); 27.4 (vetrāgrīṃṛtā- instead of vegāgrāmṛtā-); 27.25 (sa svāduḥ is preferable to tat svāduḥ);<sup>12</sup> 27.55 (jaṅgalacāriṇaḥ instead of jāṅgalacāriṇaḥ); 27.92 (kālākhyam instead of kulāyam);<sup>129</sup> 27.101 (-nālikāsūryaḥ instead of -nālikāsūryaḥ); 27.122 (sārṣapaṃ śāḥam is odd among the group of kandaśākas);<sup>130</sup> 27.128 (vātapitte praśasyate is better than vātapitte ca śasyate); 27.163 (madhurāṇy anupākīni instead of madhurāṇy amlapākīni); 27.216 (varuṇālaye instead of varuṇālayam); 28.4 (prasādākhyāḥ malākhyāś ca instead of malākhyāḥ prasādākhyāś ca); Ni.3.10 (sabubhukṣasya instead of abubhukṣasya);<sup>131</sup> Ni.4.14 (ikṣvālīrasasaṃkāśa should be read instead of kṣāṇḍekṣurasasaṃkāśa);<sup>132</sup> Vi.3.45 (tīvrādharmarucer instead of tīvrādharmārucer); 4.5 (jñānasamudayena instead of jñānasamudāyena); 5.8 (arocakāvīpākau instead of arocakavīpākau); 5.26 (annavāhānām instead of annavāhānām);<sup>133</sup> 7.17 (trirātram instead of trivaram);<sup>134</sup> 8.11 (mādhukībhīr instead of mādhukībhīr); 8.109 (śikharidaśanāḥ is preferable to śikharadaśanāḥ);<sup>135</sup> Śā.1.143 (vratacaryopavāśaś ca instead of vratacaryopavāśau ca);<sup>136</sup> Śā.5.4 (śaḍdhātavaḥ samuditāḥ loka iti śaḍdhām labhante instead of puruṣa iti śaḍdhām labhante); 8.3 (strīpūṃsayor avyāpannaśukraśoṇitagarbhaśāyoh should be replaced by strīpūṃsayor avyāpannaśoṇitagarbhaśāyāśukrayoh);<sup>137</sup> 8.24 (viśamāsana should replace viśamāsana); 8.47 (kṣemaka instead of kṣaumaka; kaṇakaṇikendhana instead of kaṇakakaṇṭakendhana);<sup>138</sup> I.2.19 (kaścid evāśya vairasyam instead of kaścid evāśyavairasyam); 5.17 (piban instead of pibet); I.5.34 (pāḍavarmaṇoh instead of pāḍacarmanoh); 11.21 (āhvayantaḥ is preferable to āhvayaṃ tam); 12.19 (varma vicyutam is preferable to carma vicyutam); Ci.1.36b (āmalakeśv api is better than āmalakīśv api);<sup>139</sup> I<sup>2</sup>.15 (aṣṭabhāgena instead of akṣabhāgena);<sup>140</sup> 2<sup>2</sup>.8ab (sāndrībhūtaṃ tam kuryāt prabhūtamadhuśarkarāḥ instead of sāndrībhūtaṃ ca kuryāt prabhūtamadhuśarkaram);<sup>141</sup> 3.54cd (saptāhaṃ vā daśāhaṃ vā dvādaśāhaṃ suduḥ-sahaḥ is preferable to daśāhaṃ dvādaśāhaṃ vā saptāhaṃ vā suduḥsahaḥ);<sup>142</sup> 5.77c (śūlānāhaharāḥ instead of śūlānāhaharī); 6.26 (surāhvam instead of surāhvām);<sup>143</sup> 6.40 (savalkām instead of sakalkām); 7.111 (sailā instead of śailā); 7.120 (rajas instead of payas); 7.123 (pakvasurā is to be replaced by śakrasurā);<sup>144</sup> 7.140 (ardhapalāṃśam is more correct than ardhadalāṃśam); 8.58 (śleṣhāśayastham is preferable to āmāśayastham);<sup>145</sup> 9.22 (-pāṇīḥ instead of vāṇīḥ);<sup>146</sup> 13.48 (anudakaprāptam udaram is better than anudakam aprāptam udaram); 13.88–89ab (the correct order is 88ab, 89ab, 88cd); 13.119cd–124ab (iti paṭolādicūrṇam should be inserted after the formula); 14.43 (iṣṭakasya should be replaced by dīpyakasya); 14.228–229 (iti picchābastīḥ should come after 228); 14.243 (śītoṣṇāni ca yojayan instead of yojayet); 14.252 (śaśārkarāḥ instead of śaśarkarāḥ); 14.253ab (dvāividhyaṃ instead of dvididhyaṃ); 14.253cd (peyaś ca instead of peyaś ca); 15.35 (sthalam nimnam ivodakam is preferable to sthalān nimnād ivodakam); 15.89 (kolāmla instead of kolāmbu); 15.97 (cāṇalam instead of cāṇanam); 15.205 (sa ghrītaṃ instead of saghrītaṃ); 15, colophon

(grahanīdoṣacikitsitaṃ is more correct than grahaṇīcikitsitaṃ); 17.69 (śuṣkaṃ vṛkṣaṃ ivānalāḥ instead of śuṣkaṃ kakṣaṃ); 17.145–146 (iti manāḥśīlādighṛtaṃ should be read after 17.145); 18.60 (lehyād is preferable to lihyāḥ);<sup>147</sup> 18.87 (nīlī vāraṇapippalī instead of nīlīsārāṇi pippalī); 18.101 (the second jīvaka should be replaced by vṛddhika); 18.159 (śṛte instead of śṛtair);<sup>148</sup> 19.34 (amlasnehāḍhyaḥ instead of amlasnehāḍyah);<sup>149</sup> 19.113 (līdhvā instead of pītva);<sup>150</sup> 21.86 (kalkitair instead of tvakkalkair); 22.11 (22.11 and 12 should be read together because both deal with vā-tikatṛṣṇā); 22.19 (tṛṣyati is preferable to tṛṣyate); 22.42 (pakvāmalōṣṭaje jāle instead of pakvalōṣṭam eva ca jāle);<sup>151</sup> 22.49 (lehyam instead of leham); 22.51 (prapibet instead of tṛṣitah); 23.9 (kṛkalāsakāḥ instead of sakṛkaṇṭakāḥ); 23.15 (jāṅgamaṃ instead of jāṅgamaṇi); 23.42 (viśādhmānaṃ is preferable to viśādhānaṃ); 23.84 (vicarcikāṃ instead of viśūcīkām); 23.91 (vijaye instead of vijayo);<sup>152</sup> 23.135 (gāḍhasaṃpāditam ūrdhvaṃ instead of gūḍhasaṃpāditam vṛttaṃ);<sup>153</sup> 23.143 (prāṇaharārditah is preferable to dūṣiṣārditah); 23.151 (daṣṭo 'sādhyena instead of daṣṭo 'sādhyas tu);<sup>154</sup> 23.188 (khadirāṛiṣṭakauṭajaṃ mūlam ambhasā instead of khadirāṛiṣṭaṃ kauṭajaṃ mūlam ambhasā); 23.231 (ikṣurako instead of ikṣuraso); 23.234 (naraś instead of garaś); 23.245 (śvetabhaṇḍyaśvakhurakau instead of śvetabhaṇḍyaśvakhurakau); 24.71 (made cottamake 'dhikām instead of madhye cottamamadhyayoḥ);<sup>155</sup> 24.77 (rājasamāpānaṃ instead of rājasamāpannaṃ); 24.159 (hemapuspakuṭannaṃ is preferable to hemapattraṃ kuṭannaṃ); 24.162 (vyaṇjanāṃ is more correct than vyañjanāṃ); 25.41 (śodhanaropaṇīyau instead of śodhanau ropāṇīyau); 25.55 (lekhaṇaṃ instead of lepanaṃ); 25.109 ((kāthīnyaṃ instead of śaithīlyam);<sup>156</sup> 26.17 (sa mūtravaryo 'nilasaṅgam asyan instead of sa mūtravarco 'nilasaṅgam āsu);<sup>157</sup> 26.74 (katakāḍikānām instead of kanakāḍikānām); 26.96 (kaulatthayūṣaiś is preferable to kaulatthadhānyaiś);<sup>158</sup> 26.127 (asravaṇaṃ instead of āsravaṇaṃ; pūtiśravaṇaṃ instead of pūtiśravaṇaṃ); 26.128 (snighasrutih instead of snigdhasrutih); 26.132–133 (iti khālityaroganidānam should come after 26.132); 26.144 (the second pibet should be replaced by tataḥ);<sup>159</sup> 26.181 (śāṅkhayo instead of śeṣayo); 26.187ab (iti śīrorogacikitsā should come after 26.180); 26.261 (saśvetamaricāḥ instead of syur alpamaricāḥ); 26.264 (sāhacarād bhāṅgarājāc ca instead of saḥacarād bhāṅgarājāc ca); 27.29 (śālmalaṃ instead of śālmalī);<sup>160</sup> 28.10 (antrāṇi instead of antrasthaṇi);<sup>161</sup> 28.41 (bhugnā jihvā instead of dīnā jihmā); 28.49cd–50ab (correct reading: vivṛ-tāsyatvam athavā kuryāt saṇivṛtavakratām/ hanugrahaṇi ca samsthabhya hanuṃ stabdham avedanam); 28.53cd–54 (the correct order is: 54cd, 53cd, 54ab); 28.94 (praharṣo 'nnaṃ ca instead of harṣo 'nnapānaṃ);<sup>162</sup> 29.101 (sirāvedhāgnikarma ca instead of sirā bastyagnikarma ca);<sup>163</sup> 28.202 (jñānasamṛtibalakṣayam instead of jñātvā samṛtibalakṣayam); 29.110 (padmakotpalayaṣṭyāhvaphenilāpdmavetasaiḥ instead of padmavetasayaṣṭyāhvaphenilāpdmakotpalaiḥ); 29.113 (the correct name of the recipe is mahāpadmakāṇi tailam); 29.140 (kṣīrapīṣṭam umāṇi lepam instead of kṣī-rapīṣṭam umālepam); 29.151 (dhānyāmlapeṣitam instead of dhānyāmlasaṇnyutam);<sup>164</sup> 30.116 (pāṇḍure pradare instead of pāṇḍure 'srgdare);<sup>165</sup> 30.236 (kuryur aṣṭavidhaṇi doṣaṃ līngatas tān nibodha me instead of kuryur aṣṭavidhaṇi bhūyo doṣatas tan nibodha me); 30.250cd–251ab (proposed reading: anye ca vividhā rogā doṣaiḥ kṣī-rasamāśritaiḥ/ kṣīre vātādibhir duṣṭe saṇibhavanti tadātmakāḥ); 30.261cd (kvāthaṃ

ca nāgarāt instead of kvāthaṃ caiva sanāgaram); 30.293 (samyagyoge instead of samyagyogo);<sup>166</sup> 30.305 (vyākhyātam etat kālasya savikalpam avekṣaṇam instead of vyākhyātam abalānāṃ savikalpānām avekṣaṇe);<sup>167</sup> 30.310 (vardhante instead of varṣānte); Ka.12.37 (caika instead of caiva);<sup>168</sup> 12.88 (bhavet tābhyāṃ instead of bhaved eko); 12.93 (prasṛtau dvau instead of kuḍavau dvau; caturguṇapalaṃ instead of palaṃ caturguṇam); Si.1.41 (kṛtaḥ instead of sa yaḥ); 3.32 (paraṃ syāt instead of paraṃ syuḥ); 3.53 (drākṣarddhi- instead of drākṣādi-);<sup>169</sup> 7.46 (śīrṣavirecanam instead of asya virecayet); 8.31 (pitte 'sre kaphe instead of pitte vā kaphe); 9.16 (dhamanīḥ kaphavātābhyāṃ ruddhās instead of śvasanaṃ kaphavātābhyāṃ ruddham); 10.48 (mehe ca tv ekas triṃśac ca instead of mehe ca ekatriṃśac ca);<sup>170</sup> 11.9 (kṛtavedhanam asty avātalaṃ is preferable to kṛtavedhanam āha vātalaṃ); 11.22 (govājino instead of gavādiṣu); 12.11 (aticañkramaṇāsane instead of avicañkramaṇāsane); 12.13(6) (gātrāvasādā instead of gātrāvasāda-); 12.16(1) rajovisarga- instead of rajovisarpa-) 12.18(15) (jānujaṅghā instead of jānūru);<sup>171</sup> 12.31 (kṣāra instead of kṣīra); 12.41 (ṣaṭtriṃśatā instead of ṣaṭvīṃśatā).

### Schools of interpretation

A number of schools which adhered to particular interpretations of the *Carakasamhitā* or to their own text of the treatise are mentioned by commentators.<sup>172</sup> The schools referred to are the Dākṣiṇātyas,<sup>173</sup> Gauḍas,<sup>174</sup> Hārīścandras,<sup>175</sup> Kāśmīras,<sup>176</sup> Maitreyas,<sup>177</sup> Paitāmahas,<sup>178</sup> Saindhavas,<sup>179</sup> Śivasaindhavas,<sup>180</sup> Udīcyas,<sup>181</sup> and Vaiṣṇavas.<sup>182</sup>

### The Carakottaratāntra

A *Carakottaratāntra*<sup>183</sup> is quoted in Candrāṭa's *Yogarātnasamuccaya*, Niścala's *Ratna-prabhā*,<sup>184</sup> Śivādāsena's *Tattvabodha* on the Uttarasthāna of the *Aṣṭāṅgahṛdayasamhitā*,<sup>185</sup> and by the unknown commentator on an interpolated portion of the *Cakradatta*.<sup>186</sup>

Verses from the *Carakottaratāntra* form part of Vṛnda's *Siddhayoga* and Cakrapāṇidatta's *Cikitsāsamgraha*.<sup>187</sup>

Some of these stanzas are related to verses found in the *Suśrutasamhitā*,<sup>188</sup> and to verses from unknown sources in *Siddhayoga* and *Cakradatta*.<sup>189</sup>

All the quotations from this *Carakottaratāntra*, with one exception,<sup>190</sup> are concerned with the treatment of diseases belonging to śālya and śālākya, which conveys the impression that it was a supplement to the *Carakasamhitā* of the same type as the *Uttaratāntra* of the *Suśrutasamhitā*<sup>191</sup> in covering divisions of āyurveda which are not the main subject of the treatise.<sup>192</sup>

The *Uttaratāntra* is mentioned in a verse that is found towards the end of the *Carakasamhitā* (Si.12.50). This verse,<sup>193</sup> considered as spurious by Cakrapāṇidatta on the authority of the ancient physicians (vṛddhāḥ), says that the tantrayuktis will be described in extenso in the *Uttaratāntra* in order to provide right knowledge on the merits (guṇa) and defects (doṣa) of the treatise (tantra). Cakra states that the

Uttaratantra of the *Agniveśatantra* ought to be regarded as unauthoritative. In spite of this, he refers to it (in his comments ad Si.12.41cd–44), remarking that the fifteen kinds of vyākhyā, seven kinds of kalpanā, twenty-one kinds of arthāśraya, seventeen kinds of tācchīlya,<sup>194</sup> and fourteen kinds of tantradoṣa are not dealt with here, because they will be discussed in the Uttaratantra, a section obviously known to him.

This information on the contents of the Uttaratantra of the *Agniveśatantra* does not tally with the available quotations from the *Carakottaratantira*.<sup>195</sup>

### Caraka's region

The region where the *Carakasamhitā* may have been written is often supposed to be the northwestern part of India.<sup>196</sup> The evidence that can be drawn upon for the determination of this region is meagre and depends entirely on the identification of passages due to the author called Caraka and his identity.

An Indian tradition claims that the *Carakasamhitā* is the work of those pupils of Vaiśampāyana who went to the northern parts of India.<sup>197</sup> Those convinced that the Kāśmīrapāṭha is due to Caraka assume Kāśmīr to have been the region where he lived.<sup>198</sup> Hoernle also regarded him as a native of Kāśmīr.<sup>199</sup> Others, accepting the identity of the author of the samhitā with the court-physician of Kaniṣka, are sure on that ground that he belonged to the North-west. Others again base themselves on the descriptions of the Himālayas, etc., which are thought to indicate that he roamed through northern or northwestern India, not far from the mountains.<sup>200</sup> One author is confident that Caraka lived in Benares.<sup>201</sup>

P.V. Sharma adduces in support of the thesis that Caraka was a resident of northwestern India the mention of articles of food that were much used there and exported to other regions.<sup>202</sup> Examples are: abhiṣuka,<sup>203</sup> akṣoṭa,<sup>204</sup> canaka,<sup>205</sup> gr̥hjanaka,<sup>206</sup> kharjūra,<sup>207</sup> laṣuna,<sup>208</sup> mṛdvikā,<sup>209</sup> mukūlaka,<sup>210</sup> nikocaka,<sup>211</sup> palāṇḍu,<sup>212</sup> rājamāṣa,<sup>213</sup> urumāṇa,<sup>214</sup> vātāma,<sup>215</sup> and yavāni.<sup>216</sup> Some more items of the same type are āruka,<sup>217</sup> bhavya,<sup>218</sup> cīnaka,<sup>219</sup> and ṭaṅka.<sup>220</sup> Condiments popular in the same region are hiṅgu<sup>221</sup> and kuṅkuma.<sup>222</sup>

### Plant names and names of vegetable substances

Plant names and names of vegetable substances found in the *Carakasamhitā*, but absent from the *Suśrutasamhitā*, are: abhaya<sup>223</sup> (Sū.3.29; Ci.4.81; 12.69; Si.3.47); abhīrupatṭi<sup>224</sup> (Vi.8.139); ādāni<sup>225</sup> (Śā.8.47); adhoguḍā<sup>226</sup> (Sū.1.77); adhyañḍā<sup>227</sup> (Ci.3.267); ādityavallī<sup>228</sup> (Ci.26.268); agnimukhi<sup>229</sup> (Sū.4.9); ajaḍā<sup>230</sup> (Ci.2.18; 2.4.15 and 31); ākhuṣpari<sup>231</sup> (Ci.26.70; Si.3.61; 8.9); ākhuṣparṇika<sup>232</sup> (Sū.4.11; Ci.30.107; Si.4.18; 10.32); akṣīva<sup>233</sup> (Sū.4.11; Ci.3.267); ambhaḥśyāmāka<sup>234</sup> (Sū.27.17); amburuha<sup>235</sup> (Ci.22.37); amlapākin<sup>236</sup> (Sū.27.163); amlikākanda<sup>237</sup> (Sū.27.121); amoghā<sup>238</sup> (Sū.4.18; Śā.8.20); amṛṇāla<sup>239</sup> (Sū.3.26);<sup>240</sup> amṛtaphala<sup>241</sup> (Ci.7.147); amṛtaphalā (Ci.18.88);<sup>242</sup> añjanābhaka<sup>243</sup> (Ci.23.12); aṅkalodya<sup>244</sup> (Sū.27.117); annapākin<sup>245</sup> (Si.12.19); antaḥkotarapuṣpi<sup>246</sup> (Sū.1.82); ariṣṭā<sup>247</sup> (Sū.4.18; Śā.8.20); asanaparni<sup>248</sup> (Vi.8.139; Ci.26.70); āsuri<sup>249</sup> (Sū.27.101); āśvahana<sup>250</sup> (Sū.3.17; Ci.29.

142; Si.9.51);<sup>11</sup>śaśvakhuraka<sup>251</sup> (Ci.23.245); aśvāvarohikā<sup>252</sup> (Si.10.37); atirasā<sup>253</sup> (Sū. 4.10 and 18; Ci.10.35); ātmajā<sup>254</sup> (Ci.3.267); avaghāta<sup>255</sup> (Ci.7.129); avaghātaka<sup>256</sup> (Ka.8.3); avāṅkṣuṣpī<sup>257</sup> (Vi.8.151; Ci.7.114; 14.234; 29.62); avarohā<sup>258</sup> (Ci.3.267); avyathā<sup>259</sup> (Sū.4.18; Śā.8.20 and 58); bahulā<sup>260</sup> (Ci.8.103); bahuphenarasā<sup>261</sup> (Ka. 11.3); balāhaka<sup>262</sup> (Ci.23.11); balbaja<sup>263</sup> (Śā.8.41; Ci.1<sup>4</sup>.7; 5.138); bhādraparnī<sup>264</sup> (Vi.8.135); bhādraudanī<sup>265</sup> (Sū.4.9); bhaṇḍī<sup>266</sup> (Sū.27.107); bhāradvājī<sup>267</sup> (Sū.4.9; Vi.8.139); bilvaparnī<sup>268</sup> (Sū.27.107); bodhivrkṣa<sup>269</sup> (Ci.29.158); brhatpattra<sup>270</sup> (Ka.9.3); buḥa<sup>271</sup> (Ci.30.82); cakramudgaka<sup>272</sup> (Sū.21.25); cañcu<sup>273</sup> (Ci.19.32); cāraṭī<sup>274</sup> (Ci.3.45); carmakaṣā<sup>275</sup> (Ci.23.66); carmasāhvā<sup>276</sup> (Ka.11.3); chattra<sup>277</sup> (Sū.27.123); cīna<sup>278</sup> (Sū.27.14); cīnaka<sup>279</sup> (Ni.4.5; 5.6); cirbhaṭa<sup>280</sup> (Sū.27.112; Ci. 19.32); cukriḷā<sup>281</sup> (Ci.8.131; 14.199 and 202; 15.89; 24.151); cukrikā<sup>282</sup> (Ci.15.114; 24.151); cuñcuparnīkā<sup>283</sup> (Sū.27.100); daṇḍairakā<sup>284</sup> (Ci.26.51; Ka.1.25); dardura<sup>285</sup> (Sū.27.14); dāruniśā<sup>286</sup> (Ci.6.40); devatāḍaka<sup>287</sup> (Ka.2.3); dhanañjaya<sup>288</sup> (Ci.4.75); dhanvayāsa(kā)<sup>289</sup> (Sū.4.11 and 14; Ci.3.204 and 207; 4.46; 7.145; 18.178; 21.58; 26.170); dhaivayavāsa<sup>290</sup> (Ci.14.186); dhāvanī<sup>291</sup> (Ci.3.187 and 224); dugdhikā<sup>292</sup> (Ci.8.131; 14.198; 21.83; 26.266); dvārada<sup>293</sup> (Vi.8.139; Ci.1<sup>4</sup>.15); dvīpī<sup>294</sup> (Vi.8. 135); dvīpikā<sup>295</sup> (Ka.1.22); dvīpīśatru<sup>296</sup> (Vi.8.135); eḍagaja<sup>297</sup> (Sū.3.3, 13, 15; 27.33; Ci.7.93, 103, 413, 126, 127, 160, 161); ekāṣṭhīla<sup>298</sup> (Si.10.23); elāparnī<sup>299</sup> (Vi.8.135); erakā<sup>300</sup> (Sū.13.24 and 27; Ci.29.134); gandhana<sup>301</sup> (Sū.27.14); gandhapala<sup>302</sup> (Ci.23.57); gāndhapariyaṅgu<sup>303</sup> (Sū.25.40; Śā.8.24; Ci.21.90); garāgarī<sup>304</sup> (Ka.2.3; Si.11.12); garmūti<sup>305</sup> (Sū.27.18); gaura<sup>306</sup> (Sū.27.8 and 13); girimallikā<sup>307</sup> (Ka.5.4); gopī<sup>308</sup> (Vi.8.135); guḍā<sup>309</sup> (Ka.10.8); hāridraka<sup>310</sup> (Sū.26.84); hastiparnī<sup>311</sup> (Sū.1. 82); hastiparīṇī<sup>312</sup> (Sū.1.84); hastiśyāmaka<sup>312</sup> (Sū.27.17); hayagandha<sup>313</sup> (Ci.28.173); hemadugdhā<sup>314</sup> (Ka.12.23); heman<sup>315</sup> (Sū.3.29; Ci.11.40; 12.36; 21.74; 24.159; 25.116 and 117); hiṅguparnī<sup>316</sup> (Ci.9.57); hiṅgupatirikā<sup>317</sup> (Ci.9.66); hiṅguśivātikā<sup>318</sup> (Ci.10.37; 15.109); hintāla<sup>319</sup> (Ka.1.8); ikṣuvālā<sup>320</sup> (Ci.26.73); ikṣuvālikā<sup>321</sup> (Sū. 4.12; 25.49; Ni.4.10; Vi.8.135; Śā.8.29; Ci.2<sup>1</sup>.24; Ka.1.25); ikṣvālikā (Ci.11.18); indrā<sup>322</sup> (Ka.7.19); indrāhva<sup>323</sup> (Ci.14.160); indrāṇī<sup>324</sup> (Ci.21.85 and 90); indrasā- hvā<sup>325</sup> (Ci.6.42); indrāyudha<sup>326</sup> (Ci.23.12); jālamālinī<sup>327</sup> (Ci.23.206); jalapippalī<sup>328</sup> (Sū.27.171); japā<sup>329</sup> (Ci.1<sup>3</sup>.57); jayā<sup>330</sup> (Ci.9.45); jhīṇṭī<sup>331</sup> (Sū.27.18); joṅgaka<sup>332</sup> (Ci.1<sup>4</sup>.15); jūṇāhva<sup>333</sup> (Sū.21.25; 27.18); kākāhvā<sup>334</sup> (Ci.21.90); kākāṇḍa<sup>335</sup> (Sū. 27.34); kālāñiba<sup>336</sup> (Sū.27.101); kālāñkataka<sup>337</sup> (Ka.1.25); kālāñkrta<sup>338</sup> (Vi.8.135); kanaka<sup>339</sup> (Ci.7.74; 23.78); kanakapūṣpī<sup>340</sup> (Ci.7.167); kāṇḍīra<sup>341</sup> (Ci.3.267; Ka. 1.25); kapikācchu<sup>342</sup> (Ci.9.80; 11.62; 28.125 and 160); kapolavallī<sup>343</sup> (Vi.8.139); kapotavallī<sup>344</sup> (Vi.8.139); karkaṣā<sup>345</sup> (Sū.27.97; Vi.8.143); karkaṣāhvayā<sup>346</sup> (Ka.7. 18); karkatākī<sup>347</sup> (Ci.18.51 and 153); karkotakī<sup>348</sup> (Ka.4.3); karnikāra<sup>349</sup> (Ka.8.3); kaṣṭhagodhā<sup>350</sup> (Ci.1<sup>4</sup>.7); kaṭambhara<sup>351</sup> (Ci.9.47); kaṭuphalā (Ci.23.66; <sup>352</sup> Ka.4. 3); <sup>353</sup> kauntī<sup>354</sup> (Ci.9.35; 12.65; 23.55; Si.8.13); kāyasthā<sup>355</sup> (Ci.9.46 and 57; 10.46 and 48; 17.141; 26.83); kelūṭa<sup>356</sup> (Sū.27.114); khaṇḍikā<sup>357</sup> (Sū.27.28); kharāhvā<sup>358</sup> (Sū.23.15; 27.172; Ci.14.43); kharāśvā<sup>359</sup> (Ci.26.60; Si.9.8); kilima<sup>360</sup> (Vi.8.142; Śā.8.34 and 41; Ka.7.15); kokanada<sup>361</sup> (Vi.6.17); kolavallī<sup>362</sup> (Ci.3.210); koṣāṭaka<sup>363</sup> (Ka.6.9; Si.3.56); koṭhaphala<sup>364</sup> (Si.11.12); koṭhaphalā<sup>365</sup> (Ka.4.3); krauñca<sup>366</sup> (Ci.23.11); krauñcādana<sup>367</sup> (Sū.27.116; Ci.3.258; 14.9); krmihara<sup>368</sup> (Ci.7.153); kṛṣṇacitraka (Ci.26.272); kṛṣṇapiṇḍita<sup>369</sup> (Ci.26.272); kṛṣṇasaireyaka<sup>370</sup> (Ci.26.268);

kṛṣṇaṣaṇa<sup>371</sup> (Ci.26.269); kṣaudraparnī<sup>372</sup> (Ci.7.123); kṣemaka<sup>373</sup> (Ci.3.267); kṣī-  
 rapuṣṇī<sup>374</sup> (Ci.1<sup>4</sup>.6); kṣīravallī<sup>375</sup> (Vi.8.139); kṣīrikā<sup>376</sup> (Ci.2<sup>3</sup>.8); kṣveḍa<sup>377</sup> (Ka.6.3,  
 10, 12); kucelā<sup>378</sup> (Sū.27.95); kulaka<sup>379</sup> (Sū.27.97; Ci.3.189; 17.97; 23.225; 26.156;  
 27.27 and 34; 30.74 and 259); kulīṅga<sup>380</sup> (Sū.4.12); kulīṅga<sup>381</sup> (Vi.8.139); kulīṅga-  
 kṣṭ<sup>382</sup> (Vi.8.139); kulīraśṅgī<sup>383</sup> (Sū.4.14); kumārajīva<sup>384</sup> ((Sū.27.100); kuñcika<sup>385</sup>  
 (Sū.27.307; Ci.14.72; 15.108; 30.54 and 57); kuṣapūṣpaka<sup>386</sup> (Ci.23.12); kuṣkuṇḍa<sup>387</sup>  
 (Śā.6.11); kuṣṭhaghna<sup>388</sup> (Ci.23.54); kutaraṇā<sup>389</sup> (Ka.7.4); kuvala<sup>390</sup> (Sū.4.10 and  
 13; 25.49; Ni.2.4; Vi.8.136 and 140); lāṅgula<sup>391</sup> (Sū.27.8); lohavāla<sup>392</sup> (Sū.27.9);  
 lohitaṇḍana<sup>393</sup> (Ci.4.102); lauhitya<sup>394</sup> (Sū.27.17); loṭṭāka<sup>395</sup> (Sū.27.100); mācika<sup>396</sup>  
 (Vi.8.144); madhūkapuṣṇī<sup>397</sup> (Vi.8.139); madhuvallī<sup>398</sup> (Vi.8.139); mahājālinī<sup>399</sup>  
 (Ka.3.17; 4.3); mahāpattra<sup>400</sup> (Ci.14.124); mahāpuruṣadantā<sup>401</sup> ((Ci.9.46); mahā-  
 vrīthi<sup>402</sup> (Ni.4.5); maṇḍūkapiṭṭā<sup>403</sup> (Śā.8.41); māriṣa<sup>404</sup> (Sū.27.100); markāṭa<sup>405</sup>  
 (Ci.23.13); marubaka<sup>406</sup> (Ka.1.23); masūravidalā<sup>407</sup> (Vi.8.136; Ci.7.137; 21.60;  
 Ka.11.14); meghaka<sup>408</sup> (Ci.23.12); mṛdaṅgaphala<sup>409</sup> (Ka.6.3); mṛgalīṇḍikā<sup>410</sup> (Sū.25.  
 49); mṛṇālī<sup>411</sup> (Ci.8.129); mṛṣṭaka<sup>412</sup> (Sū.27.170); muktā<sup>413</sup> (Sū.4.18); mukūlaka<sup>414</sup>  
 (Sū.27.157; Ci.25.53; Ka.7.46; 12.3); mūlakaparnī (Vi.7.21;<sup>415</sup> Ci.3.267<sup>416</sup>); nadī-  
 māśaka<sup>417</sup> (Sū.27.114); nāgaraṅga<sup>418</sup> (Sū.27.156); nalikā<sup>419</sup> (Ci.28.152); nandā<sup>420</sup>  
 (Ka.10.8); nandītaka<sup>421</sup> (Vi.8.140); nārī<sup>422</sup> (Ci.1<sup>4</sup>.7); nikuca<sup>423</sup> (Sū.25.39; 26.84;  
 27.132); nīlā (Ci.1<sup>4</sup>.7);<sup>424</sup> nistrīṇṣāpattra<sup>425</sup> (Ka.10.8); nyagrodhī<sup>426</sup> (Ka.12.3);  
 odanapākin<sup>427</sup> (Ci.3.258; 29.96); padmacāraṭī<sup>428</sup> (Ci.23.55); padmottarikā<sup>429</sup> (Sū.  
 26.84); pākala<sup>430</sup> (Ci.7.161; 23.196); pakvasurā<sup>431</sup> (Ci.7.123); palāśa<sup>432</sup> (Si.3.38);  
 pāṃsuṇvāpya<sup>433</sup> (Sū.27.12); parivyādha<sup>434</sup> (Śā.8.29); parṇāsa<sup>435</sup> (Ni.2.4; Vi.7.17 and  
 21; 8.142 and 151; Ci.3.267); parṇāsaka<sup>436</sup> (Ka.1.25); parpaṭakī<sup>437</sup> (Sū.27.162);  
 parvaṇī<sup>438</sup> (Sū.27.108); parvapūṣṇī<sup>439</sup> (Sū.27.108); pataṅga<sup>440</sup> (Sū.27.9); phalapū-  
 ra(ka)<sup>441</sup> (Ci.4.95; 20.36 and 39; 26.84); pīluparnī<sup>442</sup> (Ci.3.267; 27.41; 30.50);  
 pīluparnīka<sup>443</sup> (Sū.27.102); piṇḍī<sup>444</sup> (Ci.14.10); pītadru<sup>445</sup> (Ci.10.43; 12.25; 17.110;  
 Si.4.29); poṭā<sup>446</sup> (Ka.1.25); poṭagala<sup>447</sup> (Vi.8.135; Si.10.33); praśātīkā<sup>448</sup> (Sū.21.25;  
 27.17; Ci.4.36); pratyakśreṇī<sup>449</sup> (Sū.1.77; additional verse between Ka.12.3 and  
 4); puṇḍraka<sup>450</sup> (Sū.25.49); pūtanā<sup>451</sup> (Ci.9.45); pūtanakeśī<sup>452</sup> (Ci.10.34 and 39);  
 rājakaśeru(ka)<sup>453</sup> (Vi.8.139 and 144; Si.10.37); rājakośātakī<sup>454</sup> (Ka.4.3); rājamāśa<sup>455</sup>  
 (Sū.27.25); raktamūlī<sup>456</sup> (Ci.10.31); raṇḍā<sup>457</sup> (additional verse between Ka.12.3 and  
 4); rāḍha<sup>458</sup> (Ci.26.14); roḥā<sup>459</sup> (Ci.3.267); rohiṣa<sup>460</sup> (Ci.23.12); rudhira<sup>461</sup> (Sū.4.18);  
 ruhā<sup>462</sup> (Ci.3.267; 23.80); ruhāpattra<sup>463</sup> (Ci.14.124); śāḍvala<sup>464</sup> (Ci.10.48; 16.121; 21.  
 75; 29.131); śaikharika<sup>465</sup> (Vi.7.19); śakra<sup>466</sup> (Ka.5.4); śakulādani<sup>467</sup> (Sū.4.9; 27.96);  
 śālākalyāṇī<sup>468</sup> (Sū.27.102); śāleya<sup>469</sup> (Sū.27.170; Ci.4.75); śālmalika<sup>470</sup> (Vi.8.135; Si.  
 10.36); śambarī<sup>471</sup> (additional verse between Ka.12.3 and 4); śaṃharṣā<sup>472</sup> (Vi.8.139);  
 śaṃkoca<sup>473</sup> (Ci.2<sup>3</sup>.28); śaṃvartaka<sup>474</sup> (Ci.3.258); śaṇapūṣṇī<sup>475</sup> (Sū.1.78 and 79; 4.13;  
 Vi.8.135; Ka.1.14); śārada<sup>476</sup> (Sū.27.14; Ci.14.95); sārīvākhyā<sup>477</sup> (Sū.27.9); sarpā<sup>478</sup>  
 (Ci.1<sup>4</sup>.7); sarpacchattraka<sup>479</sup> (Sū.27.123); sarvānubhūti<sup>480</sup> (Ka.7.4); śātāhvaka<sup>481</sup>  
 (Sū.27.145); śātakusumā<sup>482</sup> (Si.12.16 and 18); śataparvan<sup>483</sup> (Ci.3.258); śatapattrā<sup>484</sup>  
 (Sū.4.15; 25.49; Ci.3.258; Si.10.21); saumanasyāyaṇī<sup>485</sup> (Vi.8.135; Ka.4.16);  
 sauvamī (tvac)<sup>486</sup> (Ci.7.77); śībira<sup>487</sup> (Sū.27.18); śīlodbheda<sup>488</sup> (Ci.15.113; 30.90);  
 sitagiri<sup>489</sup> (Ci.23.95); śītaka<sup>490</sup> (Vi.8.140); śītakumbhikā<sup>491</sup> (Ci.3.258); śītivaraka<sup>492</sup>  
 (Ci.26.56 and 60; Si.9.8); śivā<sup>493</sup> (Sū.4.18; Śā.8.20); śrīnivāsaka<sup>494</sup> (Ci.28.153);

śṛṅgaverikā<sup>495</sup> (Sū.27.171); śryāhva<sup>496</sup> (Sū.3.3; Ci.30.107); śubhā<sup>497</sup> (Ci.8.145); śukabarha<sup>498</sup> (Sū.5.23); śūkari<sup>499</sup> (Ci.9.46); śuklasurasa<sup>500</sup> (Ci.23.101); śukti<sup>501</sup> (Sū.25.49; Ni.2.4; Ci.25.67); śūrpaparnī<sup>502</sup> (Ci.1<sup>1</sup>.43; 2<sup>2</sup>.5; 19.50; 28.151); sūryakāntā<sup>503</sup> (Ci.1<sup>4</sup>.7); śuṣā<sup>504</sup> (Sū.27.88); śuṣkaśāka<sup>505</sup> (Ci.19.33); sutaśreṇī<sup>506</sup> (additional verse between Ka.12.3 and 4); svarṇayūthikā<sup>507</sup> (Si.10.31); śvasana<sup>508</sup> (Ka.1.27); śvetabhaṇḍa<sup>509</sup> (Ci.23.245); śvetabhaṇḍī<sup>510</sup> (Ci.23.210); śvetakaravīra<sup>511</sup> (Ci.7.105 and 106); śvetamarica<sup>512</sup> (Ci.26.245 and 246); śvetanāman<sup>513</sup> (Sū.1.77); śvetavacā<sup>514</sup> (Ci.23.70; Si.3.62); śvetavallī<sup>515</sup> (Ci.3.267); tāḍaka<sup>516</sup> (Sū.25.49); taila<sup>517</sup> (Ci.23.12); tapanīya<sup>518</sup> (Sū.27.9); tarūṭa<sup>519</sup> (Sū.27.116; Ci.14.9); thaṇḍeyaka<sup>520</sup> (Ci.12.65); tiktalā<sup>521</sup> (Ka.11.3); tiktakṣvāku<sup>522</sup> (Ci.23.206); tiṇṭikera<sup>523</sup> (Ci.14.10); tīrtīka<sup>524</sup> (Ka.9.3); tridaśāhva<sup>525</sup> (Ci.28.162); tṛṇamūla<sup>526</sup> (Ci.4.103); tūda<sup>527</sup> (Sū.27.135); tūrṇaka<sup>528</sup> (Sū.27.8); udumbaraparnī<sup>529</sup> (Ka.12.3); ujjvala<sup>530</sup> (Sū.27.14); ulūpa<sup>531</sup> (Vi.3.7); umā<sup>532</sup> (Sū.14.36; 27.34; Ci.12.70; 17.84; 25.53; 29.140); upacīra<sup>533</sup> (additional verse between Ka.12.3 and 4); vanatiktaka<sup>534</sup> (Sū.27.95); vanatrapuṣī<sup>535</sup> (Vi.8.139); vānīra<sup>536</sup> (Ci.3.258; 4.102; Ka.1.8; Si.10.21); vanya<sup>537</sup> (Sū.3.8; 5.22 and 64; Ci.3.258; 21.74; 23.77); vāpya<sup>538</sup> (Ci.7.130); vārīja<sup>539</sup> (Ci.4.107); vārtāki<sup>540</sup> (Vi.8.151; Ci.15.183); vātapotha<sup>541</sup> (Ci.3.258); vātyapuṣpī<sup>542</sup> (Sū.4.18; Śā.8.20 and 58); vātyāyanī<sup>543</sup> (Sū.4.9); vāyasapīluka<sup>544</sup> (Ci.23.217); venī<sup>545</sup> (Ka.2.3); vetasāmla<sup>546</sup> (Ci.12.55); vikasā<sup>547</sup> (Ci.8.175); vīrā<sup>548</sup> (Vi.8.139; Ci.2<sup>1</sup>.25 and 34; 5.119; 8.79 and 101; 9.43 and 45; 11.35 and 62; 14.123 and 236; 15.127 and 156; 21.78, 79, 90; 25.47; 26.93; 28.161; 29.65, 114, 131; 30.50; Ka.4.13; Si.3.49); vīraṇa<sup>549</sup> (Sū.4.12; Śā.8.29 and 57); viṣvakṣenakāntā<sup>550</sup> (Sū.4.18; Śā.8.20); vitunnaka<sup>551</sup> (Ci.18.176; 29.94); vṛddharuhā<sup>552</sup> (Sū.4.12); vṛkadhūmaka<sup>553</sup> (Sū.27.101); vṛkṣaruhā<sup>554</sup> (Sū.4.12); vṛṣakarnīkā<sup>555</sup> (Ci.21.84); vṛṣaparnīkā<sup>556</sup> (Sū.4.11); vyāghri<sup>557</sup> (Sū.5.65; Ci.3.211 and 236; 5.106; 8.111); yamāni<sup>558</sup> (Ci.6.41; 8.126); yātuka<sup>559</sup> (Sū.27.102); yavaśāka<sup>560</sup> (Sū.27.102).

### Inorganic substances

Inorganic substances<sup>561</sup> are grouped together as pāṛthiva or bhauma in character.<sup>562</sup> A list of these substances (Sū.1.70–71a) comprises gold (suvarṇa),<sup>563</sup> the five metals (loha)<sup>564</sup> along with their impurities (mala),<sup>565</sup> sikatā,<sup>566</sup> sudhā,<sup>567</sup> manahśilā,<sup>568</sup> āla,<sup>569</sup> (senū)precious stones (maṇi),<sup>570</sup> salt (lavaṇa),<sup>571</sup> gairika,<sup>572</sup> and añjana.<sup>573</sup>

Other inorganic substances are: agārādhūma (Ci.23.51; Si.7.25; 9.58);<sup>574</sup> adrijatu (Ci.13.78);<sup>575</sup> amṛtāsaṃjña (Ci.7.114);<sup>576</sup> amṛtāsaṅga (Sū.3.10; Ci.14.55; 25.117);<sup>577</sup> aśmajatu (Ci.12.49; 16.81);<sup>578</sup> dhūma (Si.7.24);<sup>579</sup> gandha (Ci.17.125);<sup>580</sup> gandhaka (Ci.7.71);<sup>581</sup> girja (Ci.1<sup>3</sup>.64; 21.130; 30.148);<sup>582</sup> gṛhādadhūma (Sū.3.5; Ci.7.87; 23.41, 197, 198, 213; 26.194; 29.149);<sup>583</sup> kāca (Śā.8.41; Ci.17.125);<sup>584</sup> kāṅkṣī (Ci.23.54; 30.121);<sup>585</sup> kardama (Ci.21.81);<sup>586</sup> kāsīsa (Sū.3.5 and 10; Ci.7.102, 109, 114, 117, 167; 21.126; 25.115 and 117; 26.254 and 271; 30.79 and 121);<sup>587</sup> kṛṣṇamṛd (Ci.19.82; 22.44); kṛṣṇamṛttikā (Sū.27.200; Ci.19.64); kṛṣṇasikatā (Ci.22.44); leḷīṭaka (Ci.7.70);<sup>588</sup> lohītamṛd (Ci.23.101);<sup>589</sup> lomaśa (Sū.3.4 and 15);<sup>590</sup> loṣṭa (Sū.18.6; 25.40; 1.12.20; Ci.3.112; 4.80; 20.30; 22.42; 23.25; Si.7.14);<sup>591</sup> mākṣika (Ci.7.70; 16.73, 82, 83; 21.130);<sup>592</sup> mṛd (Sū.4.18, 9.13; 18.6; Śā.1.43; 3.20; Ci.4.79 and 104;

16.28 and 121; 20.42; 26.224);<sup>593</sup> mṛttikā (Sū.14.46; Ci.1<sup>2</sup>.11; 1<sup>4</sup>.21; 2<sup>4</sup>.26; 4.66; 16.27 and 117; 19.65; 27.49, 51, 54; Ka.1.9);<sup>594</sup> pāṁśu (Vi.3.7; I.12.28; Ci.1<sup>4</sup>.59; 23.39 and 174); pāṣāṇa (Sū.14.26 and 58; 27.209 and 210; Ci.21.131);<sup>595</sup> rasa (Ci.7.71);<sup>596</sup> rasottama (Ci.25.116);<sup>597</sup> romaśa (Ci.29.152);<sup>598</sup> saugandhikā (Sū.3.10);<sup>599</sup> saurāṣṭrī (Ci.7.114; 15.138);<sup>600</sup> saurāṣṭrikā (Ci.30.79 and 98);<sup>601</sup> śilāhvṛtya (Ci.1<sup>3</sup>.65; 26.99);<sup>602</sup> śilājatu<sup>603</sup> (Sū.21.24; 24.56; Ci.1<sup>3</sup>.48, 56, 58, 62; 5.97; 7.7<sup>2</sup>; 13.152 and 153; 16.88; 23.213; 28.242; 29.159);<sup>604</sup> sphaṭika (Ci.1<sup>4</sup>.22; 17.125);<sup>605</sup> suvarcikā (Sū.2.23);<sup>606</sup> suvarṇamāṁśika (Ci.7.71);<sup>607</sup> svarjikā (Vi.7.17; Ci.23.215);<sup>608</sup> tāpya (Ci.16.78; 26.250);<sup>609</sup> tuttha (Sū.3.12; Ci.7.108, 114 and 120; 26.250);<sup>610</sup> vaigandhika (Ci.23.223);<sup>611</sup> veśmadhūma (Ci.26.14).<sup>612</sup>

This survey may be useful in facilitating an assessment of the employment of inorganic substances in the *Carakasamhitā*<sup>613</sup> and comparisons with other texts.<sup>614</sup>

The inorganic substances mentioned are prescribed in various forms, both externally and internally.<sup>615</sup> Some of these substances were heated before use.<sup>616</sup> Many of them were administered in the form of a powder (cūrṇa, rajas),<sup>617</sup> either singly or in combination with other drugs.

The intricate processes known from alchemical and later āyurvedic treatises are absent from the *Carakasamhitā*,<sup>618</sup> though some are convinced that distillation is mentioned.<sup>619</sup> The term bhasman is employed in a sense that differs from its alchemical use.<sup>620</sup>

Mercury is not yet known as a medicinal substance. The term rasa<sup>621</sup> (Ci.7.71) refers back to the juice extracted (nigṛhīta) from the plant called jāti (Ci.7.70).<sup>622</sup>

A substance called rasottama, sometimes thought to be mercury,<sup>623</sup> is prescribed once, for external use in a lepa (Ci.25.116).<sup>624</sup>

The meaning of this term is a problematic issue. The presence of the verse that contains the prescription in a number of treatises gives the opportunity to compare the interpretations of various commentators. Cakra says that rasottama is either pārada (mercury) or ghee. Indu regards it as mercury (pārada). Among the commentators on the *Hṛdaya*, Aruṇadatta is silent, while the *Kairāṭī* agrees with Indu; Śivadāśasena, though identifying rasottama as pārada, adds that some are of the opinion that ghee is meant. The *Hṛdayaprakāśa* of the *Aṣṭāṅghaṛdayakośa* records that ghee is meant though many (predecessors) identify rasottama as pārada. The *Śivadīpikā* considers it to be rasāñjana. The *Kusumāvalī* on the *Siddhayoga* remarks that rasottama is either pārada or ghee according to Cakra (pāradatta), or the juice (rasa) of sahakāra (i.e., the mango) according to Jinadāsa. Śivadāśasena comments (ad *Cakradatta*, vṛṇaśṭha 101) that rasottama is pārada, while others regard it as ghee. Niścalakara mentions that Cakra sees ghee in it, while Jinadāsa interprets it as the sweet juice of sahakāra; he himself is convinced that ghee is meant, because this is the substance corresponding to rasottama in an equivalent recipe of Jātūkarṇa quoted by him.

This survey of the various interpretations makes clear that it is far from certain, even improbable, that mercury is mentioned in the *Carakasamhitā*. i



## Chapter 10

### Caraka, his identity and date

Some early European Indologists collected information on Caraka from MSS of his *saṃhitā*<sup>1</sup> and references to him and his work.<sup>2</sup> H.H. Wilson, one of the first European Indologists interested in Indian medicine, expressed the view that Caraka and Suśruta could not be later than the ninth or tenth century on account of references to them in the Purāṇas,<sup>3</sup> while the style of their works pointed to a much earlier date.<sup>4</sup> H.H. Wilson was also acquainted with the fact that Caraka had been translated into Arabic in the eighth or early ninth century;<sup>5</sup> the earliest one to discover this was, however, F.R. Dietz.<sup>6</sup> F. Kielhorn<sup>7</sup> placed Caraka before the middle of the seventh century because he is quoted three times by Bhartṛhari, who died in A.D. 651/652.<sup>8</sup>

The discovery, made simultaneously by S. Lévi<sup>9</sup> and J. Takakusu,<sup>10</sup> that a Caraka is mentioned as a physician attached to the court of Kaniṣka kicked up much dust. The references to this Caraka are found in two Chinese Buddhist texts. The first of these sources, the *Tsa-pao-ts'ang-king*,<sup>11</sup> translated from the Sanskrit<sup>12</sup> about A.D. 472 by Ki-kia-ye and T'an-yao, consists of a collection of stories, one of them telling that Kaniṣka was on friendly terms with the physician Caraka whose advice protected him from all illness. The second source, the *Fou-fa-ts'ang-yin-yuen-king*<sup>13</sup> or *Fou fa tsang yin yuan tchouan*<sup>14</sup> or Record of the twenty-three patriarchs,<sup>15</sup> said to be a translation by Ki-kia-ye and T'an-yao again, is actually a forgery made in China towards the middle or the end of the sixth century,<sup>16</sup> based on earlier works. Caraka<sup>17</sup> is depicted in this work as a physician who, after presenting himself to Kaniṣka, saves the queen on two occasions, by means of his obstetrical skills, from dying during childbirth;<sup>18</sup> disappointed, on account of the king's inattentiveness to his counsels, he leaves the court and, finally, retires from worldly life.<sup>19</sup>

Although the details of these stories, in particular those found in the Record of the twenty-three patriarchs, are untrustworthy, these sources, especially the *Tsa-pao-ts'ang-king*, which is based on a Sanskrit original, indicate that a physician known as Caraka or a caraka, may have been known about the times of the reign of Kaniṣka, towards the end of the first or the beginning of the second century A.D.<sup>20</sup>

The identity of this Caraka is a hotly debated issue.<sup>21</sup> Some regard him as the author of the *Carakasamhitā*,<sup>22</sup> while others are doubtful<sup>23</sup> or reject this identification.<sup>24</sup>

Some of the arguments adduced against the identification are: the Caraka mentioned is not credited with a medical treatise; the absence of the name of any king in the *Carakasamhitā*; the improbability that a freely wandering physician like Caraka might have accepted the bondage of a royal court;<sup>25</sup> the paucity or supposed absence of Buddhist influence on the *Carakasamhitā*, while Kaniṣka was a convert to Buddhism;<sup>26</sup>

Aśvaghōṣa, attached to Kaniṣka's court according to Chinese tradition, mentions Ātreya in his *Buddhacarita*, without referring to Caraka;<sup>27</sup> the poets and scholars at Kaniṣka's court were Buddhists; Nāgārjuna<sup>28</sup> does not mention Caraka in the *Upāyahṛdaya*,<sup>29</sup> though, according to some scholars, he refers to Suśruta;<sup>30</sup> Caraka's name is absent from the verses describing Kaniṣka in Kalhaṇa's *Rājatarāṅgiṇī*.<sup>31</sup>

These and various other arguments against the hypothesis that Caraka belongs to the period of Kaniṣka have been put forward in particular by the numerous Indian scholars who claim a much earlier date for him.<sup>32</sup>

G. Hāldār advanced as his view that the Caraka of Kaniṣka's court was actually Kapilabala,<sup>33</sup> the father of Dṛḍhabala; he called this physician, to whom he attributed a *Kapilabalatantra*, the Navīnacaraka, and supposed him to have enriched the already existing *Carakasamhitā* with the comments of Patañjali (the *Pātañjalavārttika*), to which he owed the title of Caraka.<sup>34</sup>

This assumption may have led P.V. Sharma<sup>35</sup> to suggest that the Caraka mentioned in connection with Kaniṣka may have been a Śaka physician,<sup>36</sup> and that his name points to the originally nomadic life of this people. In line with G. Hāldār, he supposes this Caraka to have revised an already existing medical treatise that, afterwards, became known as *Carakasamhitā*.<sup>37</sup>

New elements, probably incorporated by this physician, are, in P.V. Sharma's view: the references to turbans, shoes and umbrellas;<sup>38</sup> the importance of smoking;<sup>39</sup> the references to warm clothing;<sup>40</sup> the maternity home, described as a wooden structure;<sup>41</sup> the importance given to the daily agnihotra ritual;<sup>42</sup> the references to regions belonging to the Kuṣāṇa and Śaka territory, such as Bāhlika,<sup>43</sup> Saurāṣṭra, Sauvīra, and Sindhu.<sup>44</sup>

One of the problems with the name Caraka and its association with the *Carakasamhitā* is its late appearance in medical literature, a feature noticed and rightly stressed by P.V. Sharma.<sup>45</sup> Dṛḍhabala is the first author to refer to Caraka as the one who revised (saṃs-kṛ-) an earlier treatise, which, though not named, is usually assumed to be the work known as *Agniveśatantra*.<sup>46</sup> Cakrapāṇidatta mentions both Caraka and Dṛḍhabala as saṃskāraḥ.<sup>47</sup> It is in the colophons of the *Carakasamhitā* only that Caraka appears as the pratisaṃskartar of the *Agniveśatantra*.

The medical authority Caraka and the work going under his name became widely known only in the Gupta period. The earliest authors acquainted with him and his treatise are Vāgbhaṭa and Bhāṭṭarakaharīśandra. These facts, and the loss of a considerable part of the *Carakasamhitā*, made P.V. Sharma insist, as already mentioned, that Caraka may have been a Śaka physician, which would explain that his treatise failed to gain wide acceptance and got partly lost, until Dṛḍhabala supplied the missing parts. Dṛḍhabala was of Śaka origin too, in P.V. Sharma's eyes,<sup>48</sup> but in his times the Śakas had become an integral part of Indian society.<sup>49</sup>

Jyoti Mitra, who claims a very early date for the *Carakasamhitā*, suggests that it may have been retouched by a physician, bearing the title of Caraka, who was a contemporary of Kaniṣka.<sup>50</sup> Atrideva<sup>51</sup> appears to hold a similar opinion.

Solid evidence for linking the Caraka of the Chinese sources with the author of the *Carakasamhitā* is entirely lacking. This has already been emphasized by J. Filliozat,<sup>52</sup> D. Chattopadhyaya,<sup>53</sup> and others. Several persons, among them physicians, who

roamed about the country, may have been called thus,<sup>54</sup> as individuals or as members of groups known as carakāḥ.

The *Lalitavistara*,<sup>55</sup> *Saṃdharmaṇḍarīka*<sup>56</sup> and some other Buddhist texts<sup>57</sup> are acquainted with wandering heretical ascetics called carakas. The Jain canonical work *Sūyagaṇḍa* (*Sūtrakṛtāṅga*) refers to the theoretical position of one of the ancient caraka schools.<sup>58</sup>

Varāhamihira's *Brhājñātaka* mentions the carakas in a list of seven sects.<sup>59</sup> Vaidyanātha Dīkṣita refers to them as a group of religious mendicants in his *Jātakapārijāta*.<sup>60</sup>

Ṛṣabhadata, the son-in-law of the Śaka ruler Nahapāna, bestowed a donation on a community of carakas.<sup>61</sup>

The claim of the Gulabkunverba team that Caraka's name occurs in Bāṇa's *Harṣacarita* is unfounded.<sup>62</sup>

P.V. Sharma is convinced that these references to carakas agree with the type of practitioner described in the *Carakasamhitā*, a yāyāvāra without fixed abode, devoting his life to the search for knowledge and to solving the health problems of the people.<sup>63</sup> The Gulabkunverba team regards a caraka as the secular equivalent of the religious-minded parivrājaka.<sup>64</sup>

These interpretations appear to be too specific for the vagueness of the references. Moreover, the term caraka is employed to designate not only a member of various, usually religious, groups, but it has diverse other meanings too.<sup>65</sup> It may denote a follower of a particular Vedic school, a wandering religious student,<sup>66</sup> a performer of a type of acrobatics,<sup>67</sup> a person of low social status,<sup>68</sup> a glutton,<sup>69</sup> a spy,<sup>70</sup> etc.

Various other references to caraka(s) are known. The term is found in two sūtras of Pāṇini's *Aṣṭādhyāyī*: 4.3.107 mentions Kaṭha and Caraka; 5.1.11 employs the words māṇava and caraka. The names in the first sūtra are those of two schools of the Black Yajurveda.<sup>71</sup> The second sūtra has been interpreted in different ways. Some regard Māṇava and Caraka as the names of two Vedic schools,<sup>72</sup> others see in them names for students.<sup>73</sup> P.V. Sharma<sup>74</sup> offered his own explanation: the term māṇava denotes someone who indulges in magic and witchcraft,<sup>75</sup> an art called māṇavavidyā in the *Arthasāstra*,<sup>76</sup> while the term caraka probably means a medical expert devoted to the *Atharvaveda*.

The *Kāśīkāvṛtti* says that the carakas are the pupils of Vaiśampāyana, who is also known as Caraka; nine prominent ones among these carakas are enumerated.<sup>77</sup> The *Bhāgavatapurāṇa* relates that Vaiśampāyana had two pupils, named Adhvaryu and Caraka, who were known by the common name of Caraka.<sup>78</sup> The *Viṣṇupurāṇa*<sup>79</sup> and *Brahmaṇḍapurāṇa*<sup>80</sup> are also acquainted with the carakas as disciples of Vaiśampāyana.

These references have given rise to various, mostly speculative and improbable, interpretations. One Indian author asserts that Vaiśampāyana himself is the Caraka who revised the *Agniveśatantra* and made it into the *Carakasamhitā*.<sup>81</sup> Another Indian author claims that the *Carakasamhitā* is the work of Vaiśampāyana's pupils.<sup>82</sup> Others again maintain that the author of the *Carakasamhitā* must have been a member of one of the Vedic schools established by those disciples of Vaiśampāyana who went to the northern parts of India.<sup>83</sup>

The more sober view that the *Kāśīkāvṛtti* and a number of Purāṇas refer to the Vedic school called Carakaśākhā, without postulating any connection with the *Carakasamhitā*, is also represented.<sup>84</sup> The Carakas of this śākhā are, for example, mentioned in Viśvarūpa's commentary on the *Yājñavalkyasmṛti*.<sup>85</sup>

It is not clear which Caraka is meant in a passage of Jayantabhaṭṭa's *Nyāyamañjarī*,<sup>86</sup> where Caraka and others are described as able to reach a decision, by means of perception (pratyakṣa), on the power (śakti) of substances (padārtha), either combined or single (samastavyasta), relative to the variability of country, time, the individual (puruṣa), and the stage of the life cycle (daśā).<sup>87</sup>

The Caraka mentioned by Śāntaraksita is undoubtedly the Caraka of the saṃhitā.<sup>88</sup>

Some passages of Vedic texts which mention a Caraka or use related words are subject to disagreeing interpretations. The Carakācārya of the *Taittirīyabrāhmaṇa* is, according to Sāyaṇa's commentary, someone who teaches the art of walking on bamboo stilts (vaṃśāgranartana),<sup>88a</sup> i.e., a kind of dancer (ṇaṭaviśeṣa); this explanation, pointing to a person of a low social status, is accepted by the Gulabkunverba team and Hemarājaśarma,<sup>89</sup> while others prefer to see in this Carakācārya a teacher of the Carakaśākhā.<sup>90</sup> The *Vājasaneyīsaṃhitā* is, like the *Taittirīyabrāhmaṇa*, acquainted with a Carakācārya who is enumerated among the victims at the human sacrifice called puruṣamedha; this person is regarded as a teacher of the Carakaśākhā, denounced as the representative of a rival school,<sup>91</sup> as a person of low status,<sup>92</sup> a roaming mendicant (bhikṣu),<sup>93</sup> or the medical authority Caraka.<sup>94</sup>

The form of the Sautrāmaṇī ritual called Carakā, usually thought to be connected with the Carakaśākhā, was supposed by A. Hillebrandt to allude to the medical teacher Caraka.<sup>95</sup>

Other references also show that Caraka is a well known name in Vedic literature.

The Carakas formed one of the schools (śākhā) of the Black Yajurveda<sup>96</sup> and are subdivided into twelve ramifications in the *Caranavyūha*,<sup>97</sup> one of the Pariśiṣṭas of the *Atharvaveda*. One of the recensions of the Black Yajurveda, the *Kāṭhakaśākhā*, may be connected with the Carakas<sup>98</sup> and be based on an older and lost *Carakasamhitā*,<sup>99</sup> because the Kāṭha school called itself Carakakāṭha<sup>100</sup> or Cārāṇyayakāṭha in order to distinguish it from the school of the Kapiṣṭhalakāṭhas. The precise extent of the term Caraka is, however, uncertain and it may have been applied to the whole or part of the Black Yajurveda.<sup>101</sup>

The Carakaśākhā was opposed to the *Taittirīyaśākhā* of the Black Yajurveda,<sup>102</sup> and, to a still greater extent, to the schools of the White Yajurveda, represented by the *Vājasaneyīsaṃhitā*.<sup>103</sup>

One passage from the *Taittirīyasaṃhitā* has become the starting point of brisk discussions about a possible relationship between the Carakaśākhā and the practice of medicine. This passage<sup>104</sup> censures the twin healing gods, the Aśvins, as impure beings because they are physicians who roam about (cara) in the human world; a brāhmaṇa should therefore not practise medicine.

J. Filliozat has argued that the use of the term cara is a shot at the rival school of the Carakas,<sup>105</sup> who have not inserted anything similar in their saṃhitās, the *Kāṭhaka*-(27.4), *Kapiṣṭhalakāṭha*- and *Maitrīyaṇīsaṃhitā*, which relate a similar story about the

impurity of the Aśvins and their purification by means of the bahiṣpavamānastotra, but without blaming them for being the physicians of human beings.<sup>106</sup> D. Chattopadhyaya rejects the interpretation of J. Filiozat and advances that the word *carā* does not refer to the Carakaśākhā at all, being simply a descriptive epithet of the Aśvins.<sup>107</sup> J. Filiozat's suggestion that a comparison of the related passages in the recensions of the Black Yajurveda points to a connection between the Carakaśākhā and the practice of medicine<sup>108</sup> is equally unacceptable to D. Chattopadhyaya,<sup>109</sup> who postulates that the censuring of the Aśvins and of physicians in general is evidence of a changed attitude and a breaking away from the R̥gvedic tradition, in which the Aśvins were extolled and invited to drink soma in the company of the other gods.<sup>110</sup>

The references to Caraka and Carakas discussed so far show that these names are very old and go back to Vedic times. A convincing relationship between the Vedic Carakaśākhā and the medical tradition, in particular with the medical authority Caraka, cannot unequivocally be demonstrated.<sup>111</sup>

The mention of Caraka as the reviser of an earlier medical treatise appears, as mentioned before, for the first time in Dṛḍhabala's text of the *Carakasamhitā*. The other early references to a physician of this name, such as the one attached to Kaniṣka's court, only indicate that the name was given to wandering practitioners of the medical art. Much of the evidence supports the view that groups of Carakas of various types were known, and that Caraka may be seen as designating a member of one of these communities, and not primarily as an individual bearing this name.

Caraka as an individual medical authority and the author of the work rewritten by Dṛḍhabala appears on the scene for the first time distinctly in the period of Vāgbhaṭa.

Remarkable is the fact that the treatise regarded as *Carakasamhitā* by Dṛḍhabala was only partly available to him, which may mean that it did not gain wide currency in medical circles.

Another noteworthy point is that an old treatise, probably the *Agniveśatantra*, changed its name into *Carakasamhitā*, which is contrary to the practice of calling a work after the pupil who laid down the teachings of his preceptor, disregarding revisions by later authors.<sup>112</sup> The *Carakasamhitā* embodies the teachings of Ātreya Punarvasu, transmitted to Agniveśa, without ever mentioning Caraka.

P.V. Sharma<sup>113</sup> proposed two possible solutions to this problem: (a) the *Agniveśatantra* was renamed *Carakasamhitā* because Agniveśa belonged to the Vedic Caraka school; (b) Caraka, who adhered to the Carakaśākhā, revised Agniveśa's work to such an extent that the bulk was due to his contributions, which made it proper to change the name.

Dṛḍhabala's reasons for crediting Caraka with an old treatise, incompletely preserved, are obscure. It may have been known already as such in his times, he may have chosen Caraka's name on account of its Vedic associations, if these were known to him, or he may have had a representative of some group of Carakas in mind.<sup>114</sup> All this remains highly speculative.

A number of scholars suppose or are convinced that the Caraka of the *Carakasamhitā* belonged to or was connected with the Vedic Carakaśākhā or its descendants.

J. Filiozat,<sup>115</sup> whose views have already partly been discussed, suggested that

the Vedic Carakas, being not opposed to wandering physicians to the same extent as the Taittirīyas, may have been interested in medicine, and that a practitioner called Caraka may have belonged to their school. J. Filliozat added that the contents of the *Carakasamhitā* evoke the idea that it derives rather from a brāhmaṇa of a Vedic school than from a court physician, thus overlooking many of its aspects, in particular those indicating that part of the practices described are meant for the benefit of wealthy patients. One of the points to be taken into consideration according to J. Filliozat is the association of a second chief medical authority, Ātreya, with the Ātreya school of the Black Yajurveda.<sup>116</sup> He is, however, cautious enough to state that all this does not signify at all that the author of the *Carakasamhitā* lived in the period of elaboration of the Yajurvedic samhitās, since the style of the former shows it to be not much anterior to the beginning of the Christian era.

As we have seen already, D. Chattopadhyaya vigorously rejects J. Filliozat's opinions, denying any connection between the Caraka of the *Carakasamhitā* and the Carakaśākhā.

Scholars defending the thesis that the Caraka of the *Carakasamhitā* is directly related to the Vedic school often assign him to a very early period. Others, not convinced of this relationship or rejecting it, regard him, nevertheless, as a very ancient authority, anterior to Pāṇini, identical with Patañjali,<sup>117</sup> or dating from before the period of Buddha's activity.

The nature, style and contents of the earlier treatises, ascribed to Agniveśa and Caraka,<sup>118</sup> on which Dṛḍhabala's text is based, is largely a matter of speculation. The date of Caraka's revision of the *Agniveśatantra* depends on the availability of reliable internal and external evidence. Early quotations dating from before Dṛḍhabala's times, which might prove that a medical author called Caraka was known, are entirely lacking.<sup>119</sup>

Worthy of discussion are several issues which bear on the question what the *Carakasamhitā* looked like before Dṛḍhabala's revision and completion of the text.

The methodical examination of the *Carakasamhitā* in search for vestiges of Buddhist thought is of the utmost importance as one of the means which may be helpful in identifying layers of the text as it existed before Dṛḍhabala's time, since it is very unlikely that he would have added elements of this type.

The question whether or not Buddhist influences are detectable in the *Carakasamhitā* is touched upon frequently in the secondary literature, but few scholars have searched seriously for these traces. The majority of the Indian authors simply deny that Buddhism had any impact, which is based on the preconceived idea that Caraka belongs to a period preceding Buddha's activity.<sup>120</sup>

One of the very few Indian scholars to study the subject seriously is P.V. Sharma, in whose opinion the following elements point to an acquaintance of the author of the *Carakasamhitā* with early Buddhist doctrines.<sup>121</sup>

The kṣaṇabhaṅgavāda (the doctrine concerning the momentariness of any conglomeration of elements) was known,<sup>122</sup> as well as the concept of svabhāvoparama (the cessation of the dhātus due to their svabhāva).<sup>123</sup> The indriyabuddhis are said to be kṣaṇika (momentary).<sup>124</sup> The praṭīyasamutpāda (chain of dependent origination)<sup>125</sup>

and the Four Noble Truths<sup>126</sup> were known. Perception (pratyakṣa) and inference (anumāna) are, as in Buddhist logic, the chief means of acquiring valid knowledge (pramāṇa).<sup>127</sup> Pratyaya and āyatana are used as synonyms of nidāna and hetu.<sup>128</sup> The term upadhā has the same meaning as upādāna (grasping) in Buddhist thought.<sup>129</sup> Vedanā (sensation) has the same position in the *Carakasamhitā* as it occupies in Buddhist texts.<sup>130</sup> The śaddhātuka nature of the embryo and the individual human being is laid stress on.<sup>131</sup> The five pañcakas of Caraka<sup>132</sup> resemble the three groups of six dhātus of the Buddhists. The use of manas as a synonym of sattva resembles the Buddhist tradition, in which citta, manas and vijñapti are synonyms of vijñāna.<sup>133</sup> The position of prajñā in the *Carakasamhitā* has affinities with the significance of this term in Buddhist thought.<sup>134</sup> The six promoters of prāṇa (prāṇavardhana), etc., may be related to the six pāramitās of the Buddhists.<sup>135</sup> The *Carakasamhitā* employs some peculiar words which are found in Buddhist texts.<sup>136</sup>

Other authors who studied the subject are Atrideva, S. Dasgupta, the Gulabkunverba team, R.K. Sharma and Bhagwan Dash, Jyotir Mitra, and E. Windisch.

Atrideva admitted Buddhist influences, but attributed these to Ātreya or Agniveśa.<sup>137</sup>

S. Dasgupta was convinced of Buddhist influences on the *Carakasamhitā*.<sup>138</sup>

The Gulabkunverba team states that Caraka was acquainted with the kṣaṇikavāda.<sup>139</sup>

R.K. Sharma and Bhagwan Dash acknowledge that the principles of Buddhist philosophy were known.<sup>140</sup>

Jyotir Mitra expressed as his view that the use of some terms indicates more or less a peripheral glimpse of Buddhism.<sup>141</sup>

E. Windisch advanced the idea that the concept of sattva in the *Carakasamhitā* was inspired by Buddhist thought.<sup>142</sup>

Although not all the features, highlighted by P.V. Sharma and others, are convincing, it seems nevertheless reasonable to concede that traces of Buddhist thought are clearly discernible in the *Carakasamhitā* and belong to the layer antedating Dṛḍhabala's revision.

P.V. Sharma formulated as his opinion that the influences of Buddhism, in combination with the overall orientation towards Brāhmanism of the *Carakasamhitā*,<sup>143</sup> show that it was composed in a period when Buddhism was prevalent side by side with Brāhmanic culture, or in an age when, though Buddhism was still a living force, Brāhmanism was gaining the upper hand, i.e., during the third or early second century B.C., at the juncture of the Maurya and Śuṅga periods.<sup>144</sup>

The same scholar constructed an elaborate framework of external evidence in support of this dating.<sup>145</sup>

P.V. Sharma is firmly convinced that Caraka as a medical authority was not yet known to Pāṇini. Patañjali, the author of the *Mahābhāṣya*, is regarded as slightly later than or a younger contemporary of Caraka.<sup>146</sup>

Important elements of P.V. Sharma's framework are: the *Milindapañha*<sup>147</sup> has many things in common with the *Carakasamhitā*,<sup>148</sup> which indicates that they belong to the same period; Aśvaghoṣa,<sup>149</sup> whose works bear witness to his familiarity with

āyurveda, drew extensively on Caraka's work,<sup>150</sup> in spite of the fact that his name is not mentioned; a number of formulae found in the *Nāvanīṭaka*<sup>151</sup> are quoted from the *Carakasamhitā*;<sup>152</sup> the *Yājñavalkyasmṛti*<sup>153</sup> has taken much of its medical material from Caraka.<sup>154</sup>

This evidence, taken together, is thought to confirm the chronological scheme developed by P.V. Sharma.

The other material adduced by him in favour of his dating of Caraka is of various kinds, mostly consisting of internal evidence. P.V. Sharma points to the influence of the *Manusmṛti*<sup>155</sup> and other dharmaśāstra texts,<sup>156</sup> the *Gṛhyasūtras*,<sup>157</sup> and the *Purāṇas*.<sup>158</sup>

References to a king, certain types of officials, and to hospitals,<sup>159</sup> together with signs showing that the central administration of the state was growing weak, are seen as indicating that the *Carakasamhitā* belongs to the waning stage of the Mauryan empire or the period of the Śuṅgas.<sup>160</sup>

Important for the determination of the chronological position of the *Carakasamhitā* are its philosophical concepts, which are closely related to those of the Sāṃkhya, Nyāya and Vaiśeṣika schools.<sup>161</sup>

The main features of the Sāṃkhya<sup>162</sup> doctrines in the *Carakasamhitā*, which differ from those found in Īśvara-kṛṣṇa's *Sāṃkhyakārikā*,<sup>163</sup> are: the tattvas are twenty-four in number and consist of the ten senses,<sup>164</sup> manas, the objects of the five senses of perception, and the eightfold prakṛti (prakṛti in the restricted sense, mahat, ahaṃkāra, and the five mahābhūtas);<sup>165</sup> the puruṣa is identified with the avyakta (unmanifested) part of prakṛti;<sup>166</sup> the vikāras (evolutionary products) of prakṛti are collectively called kṣetra, while the avyakta part of prakṛti is regarded as the kṣetrājña (knower of the field);<sup>167</sup> the conglomeration of this avyakta with its later products generates the living beings; the tanmātras are not explicitly mentioned;<sup>168</sup> rajas and tamas represent bad states of the mind, sattva represents good ones; the ultimate state of emancipation is either absolute annihilation or characterless absolute existence and is spoken of as the Brahman state; the senses are bhautika, i.e., formed of matter.<sup>169</sup>

This account of Sāṃkhya<sup>170</sup> agrees, according to S. Dasgupta,<sup>171</sup> with the version propounded by Pañcaśikha in the *Mahābhārata*.<sup>172</sup> A cogent refutation of this opinion is due to V.M. Bedekar,<sup>173</sup> who studied and summarized the differences between a fluid proto-Sāṃkhya, found in the Mokṣadharma<sup>174</sup> of the *Mahābhārata*, the *Carakasamhitā*, and the *Buddhacarita*,<sup>175</sup> and the later philosophical Sāṃkhya.<sup>176</sup>

S. Dasgupta<sup>177</sup> was disposed to think that the early form of Sāṃkhya represented by the *Mahābhārata* and the *Carakasamhitā* is the same as the maulikya (original) school, mentioned together with an uttara (later) school in Guṇaratna's commentary, called *Tarkarahasyadīpikā*, on Haribhadra's ūri's *Ṣaḍdarśanasamuccaya*.<sup>178</sup>

The version of Sāṃkhya as found in the *Carakasamhitā*<sup>179</sup> is earlier than that of the *Sāṃkhyakārikā*,<sup>180</sup> which belongs to about the period A.D. 350-450,<sup>181</sup> and may belong to the period of Pañcaśikha<sup>182</sup> and the *Ṣaṣṭitantra*,<sup>183</sup> i.e., about 100 B.C.-A.D. 200.<sup>184</sup>

This establishes that the text of Dṛdhabala's version of the *Carakasamhitā* contains important elements belonging to an older layer.<sup>185</sup>



The connections between the *Carakasamhitā* and the Yoga system<sup>186</sup> are very different from those between the *Carakasamhitā* and the Sāṃkhya school. P.V. Sharma<sup>187</sup> came to the conclusion that the fundamental concepts of the *Yogasūtras* are completely absent from the *Carakasamhitā*.<sup>188</sup> Others share this opinion,<sup>189</sup> while a few authors only suspect some influence<sup>190</sup> or even postulate a more or less close relationship.<sup>191</sup>

Concepts and views related to those found in the Nyāya and Vaiśeṣika philosophical systems are conspicuous in the *Carakasamhitā*, but differences are present as well.

The means of acquiring valid knowledge (pramāṇa),<sup>192</sup> as acknowledged in the *Carakasamhitā*, are four in number:<sup>193</sup> āptopadeśa (the testimony of trustworthy persons),<sup>194</sup> pratyakṣa (perception),<sup>195</sup> anumāna (inference),<sup>196</sup> and yukti.<sup>197</sup> Other pramāṇas are not recognized.<sup>198</sup>

The position of yukti as a distinct pramāṇa is one of the salient features of the *Carakasamhitā*.<sup>199</sup>

The data about the pramāṇas show that the *Carakasamhitā* does not commit itself to the views of a particular philosophical school or the precursors of these schools and maintains a partly independent, partly eclectic position.

S. Dasgupta's assertion<sup>200</sup> that the *Nyāyasūtras* drew their ideas on the pramāṇas from Caraka's work cannot seriously be defended. It seems reasonable to regard the material on the pramāṇas in the *Carakasamhitā* as belonging to a period before the establishment and codification of the doctrines which are peculiar to each of the darśanas, in particular as anterior to the time in which the *Nyāyasūtras* took their final form,<sup>201</sup> i.e., probably around the second century A.D.<sup>202</sup>

The technical terms relating to debates, to which part of Ca.Vi.8 is devoted, are, apart from the *Carakasamhitā*, only found in texts on logic.<sup>203</sup> A large number of them occur in the *Nyāyasūtras*; many differences, however, are noticeable.<sup>204</sup>

S. Dasgupta,<sup>205</sup> in line with his views on the pramāṇas, supposed it to be not improbable that the *Nyāyasūtras* derived their theory of five propositions<sup>206</sup> from Caraka.<sup>207</sup>

Again, it is not necessary at all to presume that the *Nyāyasūtras* borrowed from the *Carakasamhitā*; the material found in Caraka's work more probably derives from a floating body of knowledge.<sup>208</sup>

The material related to Nyāya in the *Carakasamhitā* points to a date for the work that precedes the second century A.D.

The relationship between the *Carakasamhitā* and the Vaiśeṣika system is remarkable because key concepts of Vaiśeṣika are dealt with in the very first chapter of the *Carakasamhitā* and are employed, applied to medicine, throughout the treatise. The way in which these concepts are defined and made use of closely resembles, without being exactly the same, their definitions and uses in the *Vaiśeṣikasūtras*.<sup>209</sup>

The opinions of scholars on the type of connection between āyurvedic and Vaiśeṣika thought vary considerably.<sup>210</sup> Some assert that the Vaiśeṣika borrowed from Caraka,<sup>211</sup> while others defend a diametrically opposed view.<sup>212</sup>

The most probable conclusion that can be drawn from the available material in the

*Carakasamhitā* is that it derives from a period not far removed in time from that in which the *Vaiśeṣikasūtras* achieved their present form, i.e., A.D. 50–150.<sup>213</sup> This hypothesis is supported by passages which has the *Carakasamhitā* in common with the *Vaiśeṣikasūtras* or which resemble each other closely.<sup>214</sup>

Not much attention has been given to the relationship between Caraka and the Pūrvaśāstra for the reason that influences can hardly be detected. S.P. Gupta,<sup>215</sup> one of those who see traces of this school in the *Carakasamhitā*, points to the term *niyati*, the mention of a *yājñikasamaya*,<sup>216</sup> the references to *homa*, *daivavyapāśraya*, etc. Jyotir Mitra<sup>217</sup> also examined the connections between the *Carakasamhitā* and the Pūrvaśāstra. He discusses the *śāstras*,<sup>218</sup> the importance of *homa*,<sup>219</sup> and a number of other subjects. His reflections are based on the conviction that the elements noticed are due to Ātreya Punarvasu, whom he regards as a contemporary of Bādarāyaṇa, the teacher of Jaimini, who wrote the *Mīmāṃsāsūtras*.<sup>220</sup>

The connections between the *Carakasamhitā* and Vedānta have not much been studied either.

P.V. Sharma<sup>221</sup> expressed as his opinion that the concept of the *pāñcabhautika* nature of the body, not found in Nyāya-Vaiśeṣika, is near to Vedānta views. B. Seal<sup>222</sup> held the same conviction. S.P. Gupta<sup>223</sup> sees traces of Vedānta in the *avyaktaṁ brahma*,<sup>224</sup> *brahman* as a synonym of *mokṣa*,<sup>225</sup> and the *brahmabhūto bhūtātmā*.<sup>226</sup> Jyotir Mitra<sup>227</sup> points to Vedānta influence in the *avyaktaṁ brahma*,<sup>228</sup> the *brahmabhūto bhūtātmā*, the absence of the Sāṃkhya concept of *mūlaprakṛti*,<sup>229</sup> the views concerning the *ātman*,<sup>230</sup> the concept of *upadhā*,<sup>231</sup> and the synonyms of *mokṣa*.<sup>232</sup>

The philosophical material in the *Carakasamhitā* leads inevitably to the conclusion that it consists of a mosaic of elements derived from diverse schools of thought, often modified in the service of medicine, and mixed with concepts not found elsewhere.<sup>233</sup>

The same material suggests that the author called Caraka cannot have lived later than about A.D. 150–200 and not much earlier than about 100 B.C.

Some stray material bearing on Caraka's identity and date may be added.

An argument in defence of an early date for Caraka, put forward probably for the first time by Hemarājaśarman,<sup>234</sup> and repeated by later authors, is the absence of the names for the days of the week in the *Carakasamhitā*.<sup>235</sup>

P.C. Rāy argued in favour of the thesis that Caraka belongs to the early Buddhist era on the grounds that the chemical information in the *Carakasamhitā* with reference to metals and metallic preparations is of a less advanced character than that in the *Arthaśāstra*, composed in his view between 321–296 B.C.<sup>236</sup>

Caraka is sometimes supposed to be identical with Patañjali.<sup>237</sup> A late tradition, represented by the *Bhāvaśāstra*,<sup>238</sup> makes him an *avatāra* of Śeṣa,<sup>239</sup> also called Ananta, who was incarnated as the son of a muni, who became known as Caraka because he came to the earth in the guise of a spy (*cara*). The description of this muni in the *Bhāvaśāstra* made Bhagvat Sinh Jee<sup>240</sup> assert that the name of Caraka's father was Viśuddha.<sup>241</sup> Some<sup>242</sup> assume that Caraka was thought to be an *avatāra* of the

great Nāga called Śeṣa because he was of nāgavaṃśa.

Al-Bīrūnī<sup>243</sup> refers to a tradition claiming that Caraka was a ṛṣi in the Dvāparayuga, when his name was Agniveśa; later, he was known as Caraka, i.e., the intelligent one.

This material does not affect the conclusion reached.

Some dates assigned to Caraka are: the middle of the first millennium A.D.,<sup>244</sup> the second century A.D.,<sup>245</sup> the period of Kanīśka, A.D.100,<sup>246</sup> the first century A.D.,<sup>247</sup> the period 140 B.C.-A.D. 120,<sup>248</sup> slightly later than the Buddhacarita (50 B.C.-A.D.100),<sup>249</sup> the period 140 B.C.-A.D.60,<sup>250</sup> the first or second century B.C.,<sup>251</sup> between the second century B.C. and the second century A.D.,<sup>252</sup> the second century B.C.,<sup>253</sup> 147 B.C.,<sup>254</sup> 144 or 142 B.C.,<sup>255</sup> 200 B.C.,<sup>256</sup> earlier than 175 B.C.,<sup>257</sup> 320 B.C.,<sup>258</sup> about 500 B.C.,<sup>259</sup> the period of the *Mahābhārata* or somewhat later,<sup>260</sup> the eighth century B.C.,<sup>261</sup> between 1,000 and 800 B.C.,<sup>262</sup> earlier than Pāṇini,<sup>263</sup> about the period of the Brāhmaṇas, later than the *Śatapathabrāhmaṇa*, but earlier than Pāṇini and earlier than Buddha,<sup>264</sup> the period of the Brāhmaṇas, long before the *Nyāya*- and *Vaiśeṣikasūtras*,<sup>265</sup> about 1,000 B.C.,<sup>266</sup> 500 years before Pāṇini, in the same period as the *Yājñavalkyaśmṛti*,<sup>267</sup> earlier than Pāṇini, at the end of the Dvāpara- or the beginning of the Kaliyuga,<sup>268</sup> the beginning of the Kaliyuga.<sup>269</sup>

## Chapter 11

### Caraka in the Islamic world

The *Carakasamhitā* was translated into Persian<sup>1</sup> by an Indian physician, usually referred to as Manka,<sup>2</sup> whose actual name is supposed to have been Mañkha or Māṇikya.<sup>3</sup> This Manka came from India to the 'Abbāsid court at Baghdad on the request of the caliph Hārūn al-Raṣṣīd, who was suffering from a disease which his own physicians were unable to cure. After successfully treating his royal patient, Manka apparently stayed in Iran and may have embraced Islam. He was appointed chief physician of the royal hospital in Baghdad and rendered a number of Indian scientific treatises into Persian.<sup>4</sup> Works he is said to have translated are the *Carakasamhitā*, *Suśrutasaṃhitā*, Śānāq's Book on poisons (*Kitāb al-sumūm*),<sup>5</sup> and a book on the names of Indian medicinal plants.<sup>6</sup>

Manka is also mentioned in the *Kitāb al-bayān wa'l-tabyīn* (Book of eloquence and exposition) of al-Jāhiz (ninth century) and the *ʿUyūn al-aḥbār* (Choice Histories) of Ibn Qutayba (ninth century).<sup>7</sup>

Manka's Persian version of the *Carakasamhitā* was translated into Arabic by 'Abd-ullāh ibn 'Alī.<sup>8</sup>

Arabic authors who mention Caraka<sup>9</sup> or give extracts from his work are: 'Alī ibn-Sahl al-Ṭabarī in his *Firdaws al-ḥikma*;<sup>10</sup> Ibn al-Nadīm in his *Fihrist al-'ulūm*;<sup>11</sup> Wādih al-Ya'qūbī;<sup>12</sup> al-Rāzī in his *Kitāb al-ḥāwī fī'l-tibb*;<sup>13</sup> Ibn-Sīnā in his *al-Qānūn fī'l-tibb*;<sup>14</sup> al-Bīrūnī in his *Taḥqīq mā li'l-hind*<sup>15</sup> and *Kitāb al-ṣaydana fī'l-tibb*;<sup>16</sup> Ibn Abī Uṣaybi'a in his *ʿUyūn al-anbā' fī ṭabaqāt al-aṭibbā'*;<sup>17</sup> Ibn al-Bayṭār.<sup>18</sup>

Yōhannān bar Serāpyōn (Yūḥannā ibn Sarābiyūn)<sup>19</sup> was also acquainted with Caraka.<sup>20</sup>

Caraka was one of the sources of the *Ma'dīn al-Ṣhiṭā'*.<sup>21</sup>

## Chapter 12

### Caraka in Tibet

Caraka is called G-yo-ba-can in the title of the Tibetan translation of the *Brahmavedasāraṅgadhara-caraka*,<sup>1</sup> the same name is found in the Tibetan translation of the *Aṣṭāṅga-hṛdaya-nāma-vidūṛyakabhāṣya*.<sup>2</sup> Remarkable is the absence of Caraka's name from the list of medical authorities in the *Mahāvīyutpatti*.<sup>3</sup>

The *Carakasamhitā* was translated into Tibetan and from the Tibetan into Mongolian.<sup>4</sup> References to the Tibetan translation are available in the *Dpal-ldan gso-ba rig-paḥi khog-bugs*,<sup>5</sup> written by Sde-srid sañs-rgyas rgya-mcho.<sup>6</sup>

The Tibetan medical tradition is acquainted with a work called *Ca-ra-ka sde-brgyad*,<sup>7</sup> apparently thought to be related to the *Carakasamhitā*. The eight parts of this treatise were, according to the Tibetan tradition, written down by Nam-so-skyes and seven co-disciples:<sup>8</sup> Thaṅ-la-hbar,<sup>9</sup> Rkañ-gñis-spyod,<sup>10</sup> Hdrob-skyoñ-bu,<sup>11</sup> Me-bzin-hjug,<sup>12</sup> Lug-sna,<sup>13</sup> Mu-khyud-hjin,<sup>14</sup> and Bśol-hgro-skyes.<sup>15</sup> This group of eight, to whom Indra transmitted the science, descended from the devas on the paternal side, but had a human mother.<sup>16</sup>

All these names or part of them, together with some other ones, turn up in a number of Tibetan medical works<sup>17</sup> as designating pupils of either Rgyun-śes<sup>18</sup> or Lhañi dbaṅ-po brgya-byin.<sup>19</sup>

The ṛṣi Dpal-ldan hphreñ-ba<sup>20</sup> wrote a commentary on the first part of the *Ca-ra-ka sde-brgyad*, called *Bstod-hgrel ñi zla sbar bkab*,<sup>21</sup> and a commentary on the second part, called *Smad-hgrel hphrul-gyi lde-mig*.<sup>22</sup> Both commentaries together are said to comprise 600 chapters.<sup>23</sup>

Several stories are known about the *Ca-ra-ka sde-brgyad*. One of these<sup>24</sup> tells that the medical science was taught to Yid-las skyes<sup>25</sup> and other attendants by Rig-paḥi Ye-śes,<sup>26</sup> and emanation of Bhaiṣajyaguru, the Medicine Buddha; the treatise transmitted was the *Rgyud-bzi*, but the only one to grasp its whole meaning was Yid-las skyes. The Deva attendants heard it as the medical text called *Gso-dpyad hbum-pa*,<sup>27</sup> the Buddhists as the *Rigs-gsum mgon-po*,<sup>28</sup> the ṛṣis as the *Ca-ra-ka sde-brgyad*, and the Hindus as the *Dbañ-phyug nag-phñi rgyud*.<sup>29</sup>

Another version<sup>30</sup> relates that Brahmā, wounded by Rāhu, and remembering the medical teachings of the Buddha, composed a medical treatise called *Gso-dpyad hbum-pa*. He taught it to his disciple Skye-dguñi bdag-po myur-ba<sup>31</sup> and to the Aśvins;<sup>32</sup> the Aśvins handed it down to Indra, Indra to Rgyun-śes-kyi bu.<sup>33</sup> The science passed, successively, from Rgyun-śes-kyi bu to Thaṅ-la-hbar, Dkañ-gñis-spyod, Mu-khyud-hjin, Bśol-hgro-skyed, Me-bzin-hjug, Lug-nag,<sup>34</sup> and Rgya-skegs-sna.<sup>35</sup> Each of these eight wrote a commentary called *Ca-ra-ka sde-brgyad*. Through these

great divine sages (devarṣi), the science of medicine came down from the gods to the human world, to the king of Benares; it was called the divine Brāhma system.<sup>36</sup>

The biography of G-yu-thog yon-tan mgon-po mentions six systems of medicine: the system of binding diseases by spells, which belongs to the Asuras, the *Gso-dpyad hbum-pa* of Brahmā, the Bodhisattva system, laid down in a text called the Mercy of self-release, the *Ca-ra-ka sde-brgyad* of the ṛṣis, the *Mahādevatantra* of the non-Buddhists, and the *Rigs-gsum mgon-po rgyud* of the Buddhists.

Other Tibetan medical works referring to Caraka are the *Dpag-bsam ljon bzañ* of Sum-pa mkhan-po,<sup>37</sup> the *Mkhas-paḥi dgañ-ston* of Chos-rgyal don-grub,<sup>38</sup> Jayapaṇḍita's biography of G-yu-thog-pa in the *Thob-yig*,<sup>39</sup> and the *Śes-bya kun-khyab* of Hjam-mḡon koñ-sprul blo-gros mthañ-yas.<sup>40</sup>

## Chapter 13

### Authorities associated with the Carakasamhitā

#### Atri

Atri<sup>1</sup> is the name of a priestly family already found in Vedic literature. Many hymns of the *Ṛgveda*, in particular of maṇḍala five, are attributed to the Atris and members of their family, the Ātrayas.<sup>2</sup> A number of myths about an individual seer called Atri are referred to in the *Ṛgveda*, *Atharvaveda* and some Brāhmaṇas. One of these myths tells that the Aśvins saved him from a burning pit;<sup>3</sup> once, the Aśvins are said to have made him young again.<sup>4</sup>

Atri is a well known sage in many branches of Sanskrit literature. He is often mentioned in the epics, Purāṇas, etc.<sup>5</sup> He belongs to the group of seven seers (saptaṛṣi),<sup>6</sup> and is one of the lords of created beings (Prajāpati).<sup>7</sup>

Atri's name is connected with a number of sciences,<sup>8</sup> such as dharmaśāstra,<sup>9</sup> jyotiṣa,<sup>10</sup> vāstuśāstra,<sup>11</sup> and medicine.

Medical authors and works referring to or quoting Atri are: the *Bṛhannighaṭṭura-tnākara*,<sup>12</sup> *Carakasamhitā*,<sup>13</sup> *Haṃsarājanidāna*, *Hārītasamhitā*,<sup>14</sup> *Kāśyapaśamhitā*,<sup>15</sup> *Lakṣmaṇotsava*, Nṛsiṃhabhaṭṭa's *Tāmbūlakalpaśaṃgraha*, Pālakāpya's *Hastyāyurveda*,<sup>16</sup> Aśubodha and Nityabodha Senagupta in their commentary on the *Rasaratna-samuccaya*,<sup>17</sup> Śivādāsasena,<sup>18</sup> Tōdara,<sup>19</sup> Vāgbhaṭa's *Aṣṭāṅgaḥṛdayavaiśiṣṭyābhāṣya* and *Aṣṭāṅgasamgraha*,<sup>20</sup> Vāṇeśvara Bhaṭṭācārya's *Rasaratnadīpikā*,<sup>21</sup> Vāsudeva's *Vāsudevānubhava*, Viśvanātha Dvivedī's *Rasendrasambhava*,<sup>22</sup> and the *Yogaratanākara*.<sup>23</sup>

Vāsudeva's *Vāsudevānubhava* mentions among its sources, next to Atri, the *Bṛhad-atri* and *Laghvatri*. These works are reminiscent of similar versions of the *Ātreyaśamhitā* (= *Hārītasamhitā*).<sup>24</sup>

An *Atrisaṃhitā* is referred to or quoted in Baladeva Prasāda Misra's *Āyurvedacintāmaṇi*,<sup>25</sup> Jīvānandavidyāsāgara's commentary on the *Rasendrasārasamgraha*,<sup>26</sup> Raṅgajyotiṛvid's *Vicārasudhākara*,<sup>27</sup> and the commentary of Aśubodha and Nityabodha Senagupta on the *Rasaratnasamuccaya*.<sup>28</sup>

Quotations from Atri and the *Atrisaṃhitā* may actually be from the *Hārītasamhitā*.<sup>29</sup>

Noteworthy features of these quotations and references are: an *Atrisaṃhitā* is mentioned, occasionally next to an *Ātreyaśamhitā*; Atri takes the place of Ātreya in some traditions about the origin of āyurveda; Atri is identified with Kṛṣṇātreya; some recipes are attributed to him; a definition of a drug action (saṃśamana) and descriptions of yantras (and a puṭa) are ascribed to him; he is interested in elephantology.

Atri is sometimes regarded as the medical teacher of his son, Ātreya;<sup>30</sup> Ātri's wife, Anasūyā,<sup>31</sup> is sometimes supposed to be the same as Candrabhāgā.<sup>32</sup>

Atri is in a number of sources described as the father of three sons: Dattātreyā, Kṛṣṇātreya (= Durvāsas), and Soma (= Ātreya).<sup>33</sup>

The Indian tradition ascribes to Atri an *Atrisamhitā*, dealing with kāyacikitsā.<sup>34</sup> The *Buddhacarita* of Aśvaghoṣa, on the other hand, states that not Atri, but Ātreya, was famous as a medical authority.<sup>35</sup>

The Tibetan tradition regards Atri (Rgyun-śes) as one of the sages who received the medical science from a disciple of Indra.<sup>36</sup>

### Ātreya

Ātreya is a famous medical authority.<sup>37</sup> He is the teacher of Agniveśa and other pupils in the *Carakasamhitā*; he instructs Bhela in the *Bhelasamhitā*, Hārīta in the *Hārītasamhitā*.<sup>38</sup>

Several sages called Ātreya are known in Indian literature from the earliest times onwards.<sup>39</sup> A number of hymns of the *Ṛgveda*, in particular hymns of maṇḍala five, are attributed to various members of the Atri family.<sup>40</sup> Vedic literature distinguishes some of these seers by additions to their common name. Two among these compound names are of some interest because they contain the element *vasu*, also met with in the name of the medical teacher, Ātreya Punarvasu;<sup>41</sup> these two names are Ātreya Vasuśruta<sup>42</sup> and Ātreya Vasūyu.<sup>43</sup> An Ātreya Puruvasu is known from a Brāhmaṇa.<sup>44</sup>

Ātreya is a name connected with the Black *Yajurveda*. One of its schools is the Ātreyaśākhā.<sup>45</sup> The *Baudhāyanagr̥hyasūtra* refers to an Ātreya as the Padapāṭhakāra of the *Taittirīyasamhitā*, one of the recensions of the Black *Yajurveda*.<sup>46</sup> A commentary of Ātreya on the *Taittirīya Prātiśākhya* is mentioned in Somayajvan's *Tribhāṣyaratna*.<sup>47</sup> An Ātreya figures in the *Aitareyabrāhmaṇa* as a purohita<sup>48</sup> of Aṅga.<sup>49</sup> The *Bṛhadāraṇyakopaniṣad* describes Ātreya as the teacher of a Bhāradvāja.<sup>50</sup>

Ātreya is a term used for a type of priest closely related to the *sadasya*.<sup>51</sup>

The *Gaṇapāṭha* to Pāṇini's grammar mentions Ātreya.<sup>52</sup>

Ātreya is a name occurring several times in the *Mahābhārata*, where he figures as a disciple of Vāmadeva.<sup>53</sup>

The *Brahmapurāṇa* relates that he resided in an āśrama on the banks of the Gomati and visited Indra's heaven.<sup>54</sup>

A people, called the Ātreyas, is known too; this people is mentioned as associated with the Bhāradvājas and other peoples.<sup>55</sup>

The identity of the Ātreya of the medical tradition is a much discussed problem, complicated by the fact that at least three, probably even four, different persons of this name are known: the Ātreya mentioned in Buddhist sources, Ātreya Punarvasu, Kṛṣṇātreya<sup>56</sup> and bhikṣu Ātreya.<sup>57</sup>

Some Buddhist texts relate that an Ātreya, a famous physician residing in Takṣaśilā,<sup>58</sup> was Jīvaka's<sup>59</sup> medical teacher. The name of this teacher, absent from the Pali sources,<sup>60</sup> is given as Ātreya in a Buddhist Sanskrit text<sup>61</sup> and in the Tibetan version of the Vinaya (ḥdul-ba).<sup>62</sup>



A.F.R. Hoernle identified this Ātreya with the Ātreya Punarvasu of the *Carakasamhitā*,<sup>63</sup> without underpinning his view by arguments. His guess is rejected by almost all later authors, on the strength of the following pieces of evidence: several different Ātreyas are known; the Ātreya of the Buddhist sources is not called Punarvasu, but sometimes referred to as Mānakācārya, Kapilākṣa, or Piṅgala;<sup>64</sup> he is not, as Ātreya Punarvasu, a specialist in internal medicine, but a surgeon; Takṣaśilā is not mentioned in the *Carakasamhitā*, where Ātreya is described as teaching in Kāmpilya; the names of the six pupils of Ātreya Punarvasu are absent from the Buddhist sources.<sup>65</sup>

Evidence validating Hoernle's identification is indeed almost entirely lacking, while much tells against it. One single detail seems to count in its favour: the *Bhelasamhitā* describes Ātreya as visiting the country of Gāndhāra,<sup>66</sup> a chief city of which was Takṣaśilā. This statement does, however, not carry conviction by the additional detail that Ātreya had in Gāndhāra a conversation with the royal sage Nagnajit, known already as residing there from Vedic literature.<sup>67</sup>

It is obvious that Hoernle was not fully aware of the implications of his suggestion.

The name of Ātreya as Jīvaka's teacher occurs in Buddhist sources, most of them non-Indian too, from a much later date than the age in which Buddha lived, which makes it unjustified to deduce that the former was a contemporary of the latter.

The rejection of Hoernle's claim by most Indian authors is connected with their conviction that the Ātreya of the *Carakasamhitā* belongs to pre-Buddhist times and is essentially the same as the Ātreya of Vedic literature. This view gives rise to many difficulties.

Vedic literature is already acquainted with a number of different Ātreyas, a fact that is often conveniently overlooked or explained away by assuming that the Ātreya one is concerned with is not one of those whose gotra name was Ātreya, but the son of the venerable sage Atri.<sup>68</sup>

The reference to Kāmpilya in the *Carakasamhitā*<sup>69</sup> is, in combination with the absence of any mention of Takṣaśilā, often advanced in support of the thesis that Ātreya belongs to Vedic times. This reasoning is lacking in stringency. Kāmpīla or Kāmpilī are indeed names found in Vedic texts,<sup>70</sup> but the city of Kāmpilya<sup>71</sup> as the capital of southern Pāñcāla<sup>72</sup> does not disappear at all from later Indian literature, being known to the epics,<sup>73</sup> Purāṇas,<sup>74</sup> *Kathāsaritsāgara*,<sup>75</sup> Jain literature, etc.,<sup>76</sup> which makes the argument lose its force. The absence of Takṣaśilā among the toponyms of the *Carakasamhitā*, seen as a proof of Ātreya's anteriority to the rise of the city, may as well be related to the paucity of references to Buddhism in the *saṃhitā* and its orientation towards Hinduist orthodoxy.

Cogent reasons to consider Ātreya Punarvasu to be the same as the Ātreya or one of the Ātreyas of Vedic literature are absent. The only Ātreya Punarvasu known is the one who teaches āyurveda to Agniveśa, Bhela and other pupils.<sup>77</sup> The *Aṣṭādhyāyī* is acquainted with this type of name, connected with the lunar mansion under which a person is born, and mentions Punarvasu as one of the examples.<sup>78</sup>

The Ātreya Punarvasu of the medical tradition need not be regarded as a historical personality. It is more sensible to see in him, as brought forward by J. Filliozat,<sup>79</sup> a legendary figure, selected on account of the pronounced tendency of the kāyācikitsā-

school to demonstrate its being rooted in Vedic lore. The venerable Ātreya of the Vedic texts proved to be suitable to this purpose.

The *Caraka-* and *Bhelasamhitā* give a number of details concerning their protagonist, who is called Ātreya.<sup>80</sup> Ātreya Punarvasu,<sup>81</sup> and Punarvasu,<sup>82</sup> the son of Atri.<sup>83</sup>

The *Carakasamhitā* once refers to him as Cāndrabhāgin;<sup>84</sup> the *Bhelasamhitā* mentions him as Cāndrabhāga and Cāndrabhāga Punarvasu.<sup>85</sup> These qualifications have occasioned a number of interpretations:<sup>86</sup> Ātreya was the son of Candrabh ga,<sup>87</sup> the name of his mother was Candrabhāgā,<sup>88</sup> he lived on the banks of the Candrabh ga river,<sup>89</sup> he was born in the delta formed by the rivers Candrā and Bhāgā,<sup>90</sup> he lived on the Candrabh ga mountain,<sup>91</sup> or in a place called Candrabhāga.<sup>92</sup>

Places where Ātreya delivered his teachings are the Caitraratha forest,<sup>93</sup> Gāndhāra,<sup>94</sup> the slopes of the Himālaya,<sup>95</sup> Kāmpilya,<sup>96</sup> and Pañcagaṅga.<sup>97</sup>

Ātreya is referred to as a brahmarṣi<sup>98</sup> or maharṣi;<sup>99</sup> many laudatory epithets are bestowed on him, in particular in the *Carakasamhitā*.<sup>100</sup>

The opening chapter of the *Carakasamhitā* confers the impression that Ātreya received the āyurveda from Bharadvāja. The story tells that Bharadvāja went to the abode of Indra, who transmitted the science to the former, who passed in on to a group of sages. Bharadvāja, albeit a member of this group, is not explicitly mentioned again, which makes some scholars doubtful on Bharadvāja's role as an intermediary, the more so since disagreeing versions of the story are known. This doubt is reinforced by the ambiguities surrounding Bharadvāja. Some versions of the myth about the divine origin of āyurveda make Ātreya obtain the āyurveda directly from Indra or even fail to mention Bharadvāja.<sup>101</sup>

The relationship between Ātreya and Bharadvāja is complex and not lucid at all.<sup>102</sup> An Indian tradition, known to Cakrapāṇidatta, but rejected by him, made the two even into one and the same person.<sup>103</sup>

Some Indian authors are convinced that Atri, Ātreya's father, instructed him in the medical science.<sup>104</sup> Vāmadeva is occasionally mentioned as one of Ātreya's teachers.<sup>105</sup>

Ātreya is one of the eighteen founders of the medical science in the *Parāśara-tantra*.<sup>106</sup>

An interesting tale found in the Bower MS describes a gathering of sages in which both Ātreya and Suśruta take part;<sup>107</sup> this may be the only occasion on which both authorities meet each other.

Atri and Ātreya are sometimes seen as interchangeable names.<sup>108</sup> The Atri of the *Aṣṭāṅgasamgraha*<sup>109</sup> is probably the same as Ātreya. P. Cordier regarded the Atri, mentioned in Naraharibhaṭṭa's *Khaṇḍanamaṇḍana*<sup>110</sup> as the teacher of Khāraṇādi, as identical with Ātreya Punarvasu;<sup>111</sup> the same interpretation was applied to the Atri of the pariśiṣṭadhyaḥya of the *Hārītasamhitā*.<sup>112</sup> Aśvaghōṣa's *Buddhacarita*, however, says explicitly that it was not Atri, but Ātreya, who was well known as a physician.<sup>113</sup>

Some quotations from Atri and the *Atrīsamhitā*, on the other hand, are from Ātreya and the *Ātreyasamhitā*.<sup>114</sup>

Ātreya (Punarvasu) is also confused with Kṛṣṇātreya,<sup>115</sup> and, more rarely, with bhikṣu Ātreya.<sup>116</sup> Some consider him to be the same as Dattātreya.<sup>117</sup>

Ātreya's name as a medical authority spread to Tibet. The Tibetan translation of the *Aṣṭāṅgahṛdayasamhitā* calls him Rgyun-śes-kyi bu,<sup>118</sup> the name given to him in many Tibetan texts.<sup>119</sup>

Medical works attributed to Ātreya or associated with his name are:<sup>120</sup> *Ātreya-samhitā*, *Ātreya-samhitāsāra*, *Ātreya-sārasaṃgraha*, *Ātreya-vāgyoga*, *Nāḍījñāna*, *Uṣṭrapayaḥkalpa*, and *Uttarakārikā*.

The *Ātreya-samhitā*, recorded in MS catalogues, is usually identical with one of the versions of the *Hārītasamhitā*.<sup>121</sup> Some Indian authors, basing themselves on quotations from Kṛṣṇātreya and being convinced of his identity with Ātreya Punarvasu, refer to the *Ātreya-samhitā* as a work that is no longer available.<sup>122</sup>

A number of quotations from an *Ātreya-samhitā* are neither from the *Caraka-samhitā*, nor from the *Hārītasamhitā*, and are moreover not identical with verses attributed to Kṛṣṇātreya.<sup>123</sup>

Details on the *Ātreya-samhitāsāra*<sup>124</sup> and *Ātreya-sārasaṃgraha*<sup>125</sup> are not known to me, but both texts may well be related to the *Hārītasamhitā*.

Information on the *Ātreya-vāgyoga*, *Nāḍījñāna*,<sup>126</sup> and *Uṣṭrapayaḥkalpa*<sup>127</sup> is lacking. The *Uttarakārikā* is quoted in Niścāla's *Ratnaprabhā* on the *Cakradatta*.<sup>128</sup>

Quotations ascribed to Ātreya<sup>129</sup> may be from the *Caraka-samhitā* or *Hārītasamhitā*, from some unknown work, or may consist of verses simply attributed to him as an ancient medical authority.

Ātreya, Caraka and Hārīta are in some works mentioned as three different authorities.<sup>130</sup>

Authors and works citing Ātreya on subjects not dealt with in the *Caraka-* and *Hārītasamhitā* are Aghoranātha, the Bower MS, Gaṇeśaśarman in the *Pākapradīpa*, the *Śāligrāmanighaṇṭu*, Ṭoḍara's *Āyurvedasaukhya*, and Vinodalālasena's *Āyurvedavijñāna*.<sup>131</sup>

One verse, said to be from Ātreya in Ṭoḍara's *Āyurvedasaukhya*, actually occurs in the *Suśrutasaṃhitā*,<sup>132</sup> while another verse, found in the same treatise, refers to Vāgbhaṭa.<sup>133</sup>

The works quoted as *Bṛhadātreya*, *Kaniṣṭhātreya*, *Madhyamātreya* and *Vṛddhātreya* may, at least partially, be versions of the *Hārītasamhitā*.<sup>134</sup>

Dharmaśāstra works connected with the name Ātreya are the *Ātreya-smṛti* and *Ātreya-dharmaśāstra*.<sup>135</sup>

A work called *Ātreya-tantra* is mentioned in Guṇaratna's commentary on Haribhadraśūri's *Śaddarśanasamuccaya*.<sup>136</sup> An *Ātreya-bhāṣya* or *Ātreya-tantra* was also known to the Jain author V. dideva Sūri and the Nyāya writer Vādīndra.<sup>137</sup> A lost *Rāvaṇabhāṣya* on the *Vaiśeṣika-sūtras* is sometimes ascribed to an Ātreya.<sup>138</sup> The Tibetan tradition is acquainted with Ātreya as the author of a work on the proportions of statues (*Pratimā-māna*).<sup>139</sup>

Much has been written, mainly by Indian authors, on Ātreya's date. Those who regard him as a Vedic sage, assign him to very early ages, ranging from 750–700 B.C. to one millennium or even more than one millennium B.C.<sup>140</sup>

In my opinion, these speculations do not have much sense, since Ātreya (Punarvasu) is clearly a legendary personality.

## Agniveśa

Agniveśa figures prominently in the *Carakasamhitā* as the foremost pupil of Ātreya Punarvasu.<sup>141</sup> His special position in the *Carakasamhitā* is illustrated by the story that, on account of his extraordinary intelligence (buddhivīśeṣa), he was the first to compose a treatise (tantra) based on the teachings of Ātreya (Ca.Sū.1.32). This *Agniveśatantra* was the basis of the *Carakasamhitā*.

Another work, ascribed to Agniveśa, the *Añjananidāna*, is actually a treatise by an unknown author, belonging to the eleventh or twelfth century at the earliest.<sup>142</sup> A *Nidānasthāna* by Agniveśa is recorded in only one MS catalogue;<sup>143</sup> G. Mukhopadhyaya<sup>144</sup> asserts that it is also called *Netrāñjana*, which would imply that it is identical with the *Añjananidāna*. One of the BORI MSS of the *Añjananidāna*<sup>145</sup> ends with a colophon stating that the *Añjana* from Agniveśa's *Nidānasthāna* is completed, which confirms that the so-called *Nidānasthāna* of Agniveśa cannot be but the *Añjananidāna*. The same applies to the MS of an *Agniveśanidāna*, with commentary.<sup>146</sup> Some scholars claim that Agniveśa wrote a *Nāḍīparīkṣā*.<sup>147</sup> The ascription of a commentary on the *Carakasamhitā* to Agniveśa is undoubtedly wrong.<sup>148</sup>

The only work of Agniveśa to be taken into consideration<sup>149</sup> is the *Agniveśatantra*, at least insofar as human medicine is concerned. A related science, claiming Agniveśa as one of its experts, is elephantology (gajaśāstra). His name appears in this context in Godāvaramiśra's *Harīharacaturāṅga*,<sup>150</sup> Nīlakaṇṭha's *Mātāṅgalīlā*,<sup>151</sup> Pālākāpya's *Hastīyāyurveda*,<sup>152</sup> and Śivārāmbhūpati's *Kalpanāratna*.<sup>153</sup> A MS of a *Hastīśāstra* by Agniveśa is referred to by Atrideva.<sup>154</sup>

It may be convenient to begin a discussion of Agniveśa's *Agniveśatantra* and his contributions to medicine with a list of quotations.

Authors and works quoting Agniveśa or Agniveśya and a work called *Āgniveśya*, *Agniveśatantra* or *Agniveśasamhitā* are:<sup>155</sup> Āḍhamalla,<sup>156</sup> Anantakumāra,<sup>157</sup> *Āyurvedābhdhisāra*,<sup>158</sup> Bhāvamiśra,<sup>159</sup> the *Bhesajjamañjūsāsannaya*, Cakrapāṇidatta,<sup>160</sup> Candrāṭa,<sup>161</sup> Ḍalhaṇa,<sup>162</sup> Jejjāṭa,<sup>163</sup> Jīvanandavidyāsāgara,<sup>164</sup> Kāśīrāma,<sup>165</sup> Kṛṣṇadatta,<sup>166</sup> Mādhavācārya,<sup>167</sup> Narahari,<sup>168</sup> Nīlakaṇṭha,<sup>169</sup> Niścāla,<sup>170</sup> Rudrabhaṭṭa,<sup>171</sup> Sadānandadādhīca,<sup>172</sup> Satyanārāyaṇaśāstrin,<sup>173</sup> Śivadāsaśena,<sup>174</sup> Soḍhala,<sup>175</sup> Śrīdāsaṇḍita,<sup>176</sup> Śrīkaṇṭhadatta,<sup>177</sup> Ṭoḍara,<sup>178</sup> Vāgbhaṭa,<sup>179</sup> and Vijayarakṣita.<sup>180</sup>

Quotations from Agniveśa that form part of the *Carakasamhitā* are found in Satyanārāyaṇaśāstrin's *Padārthavijñāna*,<sup>181</sup> Soḍhala's *Gadanigraha*,<sup>182</sup> and Ṭoḍara's *Āyurvedasaukhyā*.<sup>183</sup>

The larger part of the quotations, however, are absent from the text of the *Carakasamhitā*; they deal with the following subjects: (1) seasonal regimen: Ṭoḍara II: 3.130<sup>184</sup> and 196–198;<sup>185</sup> (2) epidemic diseases (janapadoddhvaṃsa): Ṭoḍara II: 3.225 and 226–228;<sup>186</sup> (3) the means of knowledge concerning diseases: Ṭoḍara II: 1.130;<sup>187</sup> (4) the qualities of the three doṣas and substances suitable to alleviate excited doṣas: Ṭoḍara II: 2.63–64;<sup>188</sup> (5) the threefold movement of the doṣas: Ṭoḍara II: 2.38;<sup>189</sup> (6) the relationships between the tastes and the mahābhūtas: Ṭoḍara II: 3.66–67;<sup>190</sup> (7) the firmness (saṃhati) of the body: Ṭoḍara II: 3.378–381ab;<sup>191</sup> (8) the number of hairs (roman) of the human body: Ṭoḍara II: 4.51–53ab;<sup>192</sup> (9) the

metabolic transformation of the seven bodily elements: Śrīdāsapaṇḍita ad A.h.Śa.3. 61cd–62ab; (10a) the formation of śukra in males and females and the duration of this process in persons with a strong, mildly weak, weak and very weak bodily fire: Śrīdāsapaṇḍita ad A.h.Śa.3.65cd–66ab and 67cd; (10b) śukra derives from the six tastes (ṣaṭprabhava) and from four mahābhūtas: Ṭoḍara II: 4.92–94 and 95–96; (11) the influence of the diet and behaviour of a pregnant woman on the unborn child: Ṭoḍara II: 4.159–160 and 205–215;<sup>193</sup> (12) embryology: Ṭoḍara II: 4.188 and 193;<sup>194</sup> (13) aṛiṣṭas: Ṭoḍara II: 5.55; (14) the classification of remedial measures (auśadha): Ṭoḍara II: 2.167–170<sup>195</sup> and 171–174;<sup>196</sup> (15a) any drug and article of diet, procurable by the patient, dependent on his circumstances, should be used by a physician: Ṭoḍara IX: 1.482–483; (15b) the classification of drugs: Ṭoḍara II: 3.6–8;<sup>197</sup> (16) the changes of the properties of medicinal substances during the process of preparation (saṃskāra): Nīścala ad jvara 41–42;<sup>198</sup> (17) snehapāka: *Yogarātnasamuccaya* 7.126; (18) dravyaguṇa: *Yogarātnasamuccaya* 8.171cd–172ab and 356;<sup>199</sup> (19) the purification of śilājatu: *Āyurvedābhdhīsā* 9372–77, *Āyurvedaprakāśa* 4.110–115, *Bhāvaprakāśa* 7<sup>3</sup>.140–143; (20) the definition of upadrava: Ṭoḍara II: 1.111–112;<sup>200</sup> (21) the treatment of primary disease (mūlavyādhi) and upadrava: Ṭoḍara II: 1.113–114; (22) pañcakannan: Kāśīrāma ad *Śārngadharasamhitā* III.3.1; (23) pralepaka fever: Ṭoḍara III: 4.795;<sup>201</sup> (24) śvasana fever: Ṭoḍara III: 4.43;<sup>202</sup> (25) dhātupāka in fevers: Ṭoḍara III: 4.1342–1343; (26) sudation (svedana) in fevers: *Kusumāvalī* ad *Siddhayoga* 1.132; (27) the treatment of kāmālā by cauterization and a magical recipe: *Basavarājīya* 90; (28) dislocations and fractures: Āḍhamalla ad *Śārngadharasamhitā* I.7.77cd–79ab;<sup>203</sup> (29) the signs of death by drowning (jalamṛtalakṣaṇa): *Kusumāvalī* ad *Siddhayoga* 21.5–6, Nīścala ad *Cakradatta*, apasmāra 7–8, Ṭoḍara V: 10.21, *Yogarātnākara* 430;<sup>204</sup> (30) addiction to alcohol and opium (ahipheṇa): Ṭoḍara III: 3.268; (31) the purification of ullipāśāna: *Basavarājīya* 387; (32) paribhāśas: (a) Cakrapāṇi ad Ca.Sū.2.17 and Ca.Ci.3.179cd–188ab, Śivadāsa ad *Cakradatta*, jvara 29;<sup>205</sup> (b) Cakrapāṇi ad Ca.Ci.3.197–200ab,<sup>206</sup> Nīścala ad *Cakradatta*, jvara 64; (c) *Cakradatta*, jvara 64;<sup>207</sup> (d) Cakrapāṇi ad Ca.Ci.4.62–72 and 88, Śivadāsa ad *Cakradatta*, rakta-pitta 14; (e) Cakrapāṇi ad Ca.Ci.7.60–64; (f) the definition of uṣṇodaka: Nīścala ad *Cakradatta*, jvara 17, Śivadāsa ad *Cakradatta*, jvara 17–18, Śivadāsa ad Cakrapāṇi's *Dravyaguṇa*, pāṇīya 31;<sup>208</sup> (g) the definition of mātṛā: Ḍalhaṇa ad Su.Ci.38.3–6, *Kusumāvalī* ad *Siddhayoga* 76.3ab, Nīścala ad *Cakradatta*, nirūha 8–10, Śivadāsa ad *Cakradatta*, nirūha 8–10;<sup>209</sup> (h) the description of kṛta- and akṛtayūṣa: Nīścala ad *Cakradatta*, vamaṇa 14; (i) rules for the preparation of ṣaḍaṅgakaṣāya, etc.: Ṭoḍara IX: 1.203–205; (j) the three kinds of dose of a drug: Ṭoḍara IX: 1.141; (k) rules for the preparation of medicated oils: Ṭoḍara IX: 1.401, 420; (33) prescriptions: <sup>210</sup> (a) cāṅgerīghṛta: *GadaniGRAHA*, ghṛta 32–35ab;<sup>211</sup> (b) cavyādyaghṛta: *Gadanigraha*, ghṛta 92–94;<sup>212</sup> (c) cyavanaprasāvaleha;<sup>213</sup> (d) keśarapāka: Sadānandadādhīca's *Cikitsāratnābharaṇa*;<sup>214</sup> (e) mahātiktakaghṛta: *Gadanigraha*, ghṛta 162–168;<sup>215</sup> (f) ṣaṭpalaghṛta: *Gadanigraha*, ghṛta 66cd–68ab; (g) śvadaṃśṭrādyaghṛta: *Gadanigraha*, ghṛta 150–153; (h) tiktakaghṛta: *Gadanigraha*, ghṛta 158–161;<sup>216</sup> (i) tryūṣāṇadyaghṛta: *Gadanigraha*, ghṛta 194–197;<sup>217</sup> (j) vāsādyaghṛta: *Gadanigraha*, ghṛta 40cd–43ab; (k) vātāntakataila: Ṭoḍara III: 4.1271–1278; (l) *Bhāvaprakāśa*, cikitsā 1.762; (m)

Cakrapāṇi ad Ca.Ci.7.60–64; (n) Ṭoḍara III: 3.73; (o) Ṭoḍara III: 3.98; (p) Ṭoḍara III: 3.161; (q) Ṭoḍara III: 3.169–170; (r) Ṭoḍara III: 3.211; (s) Ṭoḍara III: 4.801; (t) Ṭoḍara III: 4.805; (u) Ṭoḍara III: 4.1297–1299; (v) Ṭoḍara III: 4.1336–1337; (w) Ṭoḍara VI: 11.16; (x) *Yogaratanasamuccaya* 14.254–258; (y) idem, 16.326; (z) idem, 19.246; (aa) idem, 19.267–268; (bb) idem, 20.239–240; (cc) idem, 20.244.

One verse from Agniveśa was incorporated in Cakrapāṇi's *Cikitsāsamgraha*.<sup>218</sup>

The quotations from Agniveśa and a tantra or samhitā attributed to him raise several questions. Those which form part of the extant text of the *Carakasamhitā* cannot unhesitatingly be regarded as belonging to its oldest layer, the *Agniveśatantra*, on account of the possibility that the *Carakasamhitā* is cited.<sup>219</sup> Some quotations are related to verses or prose passages found in the *Carakasamhitā*, but a rather large number are absent from it. This last group is heterogeneous and comprises citations agreeing with views expressed in the *Carakasamhitā*, disagreeing with these views, or dealing with subjects not discussed in the *Carakasamhitā*. Part of the quotations are even decidedly of a rather late date. The technical rules (*paribhāṣā*) attributed to Agniveśa are most probably from a treatise entirely distinct from the *Agniveśatantra* that formed the basis of the *Carakasamhitā*.

Numerous Indian scholars are in favour of accepting the citations ascribed to Agniveśa as coming from the *Agniveśatantra*, which makes them discuss the question up to which period this treatise was still available in its original form. Manuscripts of the work are no longer extant.

P.C. Rāy is recorded as having asserted in his 'History of Hindu Chemistry'<sup>220</sup> that the *Agniveśatantra* was obsolete at the time of composition of Vāgbhaṭa's *Aṣṭāṅgaḥṛdayasamhitā*.<sup>221</sup> G. Mukhopadhyaya challenged this assertion,<sup>222</sup> being convinced of the existence of Agniveśa's original treatise in Vāgbhaṭa's time, because this author mentions the works of Agniveśa and other pupils of Ātreya as the sources of his *Aṣṭāṅgaḥṛdayasamhitā* (A.h.Sū.1.3–5ab). Vāgbhaṭa's reference may, however, be meant to stress that his treatise was in keeping with the tradition and did not introduce new material deviating from the views of the ancient authorities. Agniveśa appears again on the stage at the end of the *Aṣṭāṅgaḥṛdayasamhitā*, where he, as the foremost among Ātreya's students, asks the latter about the ultimate causes of disease and suffering, whereupon Ātreya proceeds to give a lecture on the subject (A.h.U.40.59–77).<sup>223</sup>

The *Aṣṭāṅgasamgraha* mentions Agniveśa as one among the many ancient authorities whose treatises form the basis of the work (A.s.Sū.1.4–18). He is again referred to as the one who asks Ātreya a question about the application of clysters (A.s.Ka.5.57). Towards the end of the treatise he figures as the first who wrote down the teachings on āyurveda originating from Brahmā (A.s.U.50.202).

These references to Agniveśa in Vāgbhaṭa's works do not warrant the conclusion that the *Agniveśatantra* was still extant in Vāgbhaṭa's times. The only passage in Vāgbhaṭa's works containing a particular view of Agniveśa is found in the chapter on fever of the *Nidānasthāna* (A.h.Ni.2.61–62a; A.s.Ni.2.63–64a): the crisis of samptata fever occurs on the seventh, tenth or twelfth day according to Agniveśa, whereas Hārīta declares that the critical days are the fourteenth, eighteenth and twenty-second.<sup>224</sup> The verse quoted as deriving from Agniveśa is absent from the *Carakasamhitā*,<sup>225</sup> but

its contents fully agree with verses which do form part of its text (Ca.Ci.3. 53cd–6 lab). Probably, Vāgbhaṭa summarized the essence of what he knew to be the opinion expressed in the *Carakasamhitā*; however, one cannot exclude that he was acquainted with a view traditionally ascribed to Agniveśa. This does not mean at all that the evidence collected from Vāgbhaṭa's works proves that the *Agniveśatantra* was available to him.

G. Mukhopadhyaya's allegation that Agniveśa's work still existed when the old *Sauśrutatantra* was redacted by Nāgārjuna and became known as the *Suśrutasaṃhitā*,<sup>226</sup> rests on very slender evidence. The *Suśrutasaṃhitā* does not mention Agniveśa's name; it only refers to the treatises of the six kāyacikitsā specialists<sup>227</sup> and several other groups of experts, used in the composition of the Uttaratantṛa (Su.U.1.4cd–8ab); this is a statement of the same type as that found at the beginning of Vāgbhaṭa's works.

The claim of many Indian authors that the *Agniveśatantra* remained accessible for many centuries, up to the times of Cakrapāṇidatta, Vijayarakṣita, Śrīkaṇṭhadatta and Śivadāsaśena,<sup>228</sup> is not supported by solid evidence;<sup>229</sup> it rests on the shaky basis of the uncritical acceptance of the genuineness of the quotations and on the conviction that the occurrence of these quotations means that MSS containing the complete text were still extant. Acknowledgment of the additional quotations found in Toḍara's *Āyurvedasaṃhita* and Anantakumāra's *Yogarātrisaṃhita*, neglected by the majority of Indian authors or unknown to them, would oblige them to raise the limit of the period in which the *Agniveśatantra* could be consulted. It would, moreover, be hard to explain that in the period of compilation of Toḍara's *Āyurvedasaṃhita* a large body of material from the *Agniveśatantra* could be collected that was overlooked by the commentators on the classical medical treatises.

The majority of the citations referred to by these authors in order to substantiate their claims are of the nature of paribhāṣās; these technical rules belong to a special group of quotations which are probably from an *Agniveśasaṃhitā*, a work that impresses as entirely different from the *Agniveśatantra* and of a later date. Paribhāṣās do not form part of the *Carakasamhitā* and are usually found in the commentarial literature or specialized works like the *Bheṣajakalpa*, attributed to Bharadvāja.

As I have already mentioned, the quotations attributed to Agniveśa belong to several groups. In my opinion it is impossible to decide whether or not some may be from the old *Agniveśatantra*, because of the absence of reliable criteria. No one knows what the *Agniveśatantra* looked like, in spite of assertions to the contrary.<sup>230</sup> P.V. Sharma has advanced the hypothesis that the *Agniveśatantra* was a work in sūtra style, resembling the *Arthashastra*; Caraka expanded the text, rewrote the descriptions of the assemblies of sages in the form of dialogues and added the summaries at the end of each chapter.<sup>231</sup> The same author has tried to isolate elements of the *Carakasamhitā* that in his view belong to its oldest layer, i.e., the *Agniveśatantra*.<sup>232</sup>

The quotations do not support the hypothesis that Agniveśa's work mainly consisted of sūtras; by far the larger part of the citations are in verse.<sup>233</sup>

Peculiarities found in quotations from Agniveśa which throw doubt on their authenticity or point to a date later than Dṛdhabala's completion of the *Carakasamhitā* are: the use of the term *ekarūpa yakṣman* for an epidemic disease,<sup>234</sup> the absence of

yukti as a means of knowledge;<sup>235</sup> the number of hairs of the human body;<sup>236</sup> the presence of two different quotations on the same subject;<sup>237</sup> a quotation in verse, corresponding to a passage in prose of the *Carakasamhitā*;<sup>238</sup> the description of pralepaka fever;<sup>239</sup> the description of śvasana fever;<sup>240</sup> the description of the symptoms of death by drowning;<sup>241</sup> the description of addiction to alcohol and opium;<sup>242</sup> the description of the purification of ullipāṣaṇa.<sup>243</sup>

A very remarkable reference to Agniveśa, called Hutāśa in this case, occurs in the chapter on bhagna (44) of the *Mādhavanidāna*. The first verse of this chapter looks like a quotation in which an unnamed authority answers a question put by Agniveśa. The verse distinguishes two kinds of bhagna: kāṇḍabhagna (a bone fracture) and sandhibhagna (dislocation of a joint); the latter is of six varieties. Verses two to seven of the same chapter, probably from the same source as verse one,<sup>244</sup> enumerate the twelve types of fractures.<sup>245</sup>

The presence of Agniveśa's name in a verse on this subject is striking, on account of the fact that fractures and dislocations are not discussed in the *Carakasamhitā*. The assumption that the verses referred to are from the old *Agniveśatantra*<sup>246</sup> would be tantamount to accepting that it essentially differed from the *Carakasamhitā* in also dealing with surgery.

The identity of the Agniveśa mentioned in the *Carakasamhitā* is a much discussed subject. I agree with J. Filiozat<sup>247</sup> in regarding him as a mythic figure, not as a historic personality. Most Indian scholars disagree with this view and are inclined to identify him with a person of the same name figuring in ancient Indian texts.<sup>248</sup> Several teachers called Agniveśya are already referred to in Vedic literature,<sup>249</sup> which indicates that Agniveśa is a name going back to early times.

One of the schools of the Black Yajurveda is called after Agniveśya;<sup>250</sup> this school (śākhā) is mentioned in the *Taittirīyaprātiśākhya* and the commentary on this work by Māhīṣeya.<sup>251</sup>

Agniveśa's name is found in the *Gaṇapātha* belonging to Pāṇini's *Aṣṭādhyāyī*.<sup>252</sup>

The *Mahābhārata* contains stories about a divine weapon, the āgneyāstra, given by Br̥haspati to Bharadvāja, who transmitted it to Agniveśya; Agniveśya gave it in his turn to Droṇa,<sup>253</sup> who also received the dhanurveda from him.<sup>254</sup> Agastya is said to have been Agniveśya's teacher in the art of archery (dhanurveda).<sup>255</sup> Another story tells that the coat of mail (varman), in which Indra fought Vṛtra, was handed over to Āṅgiras, who gave it to his son Br̥haspati, from whom it came to Agniveśya and finally to Droṇa.<sup>256</sup> These stories diverge in presenting Agniveśya as a pupil of Agastya, Bharadvāja and Br̥haspati.<sup>257</sup>

Purāṇas mentioning Agniveśa or Agniveśya are the *Bhāgavata*-, *Brahmāṇḍa*-, *Matsya*- and *Vāyupurāṇa*.<sup>258</sup> The *Bhāgavatapurāṇa* describes Agniveśa as an incarnation of Agni and the son of Devadatta; he became famous as the great sage Kanīna Jatūkarṇa.<sup>259</sup>

Buddhist literature is also acquainted with Agniveś(y)a;<sup>260</sup> his name is found in the *Divyāvadāna*<sup>261</sup> and the *Majjhimanikāya*.<sup>262</sup> Agnivaīśyāyana is a name occurring in the *Avadānaśataka*.<sup>263</sup>

Persons called Aggivessana are moreover known from the history of the Ājīvi-



kas.<sup>264</sup> Aggivesāyaṇa is a name found in Ardhamāgadhī literature; the Jaina canonical text *Vyākhyāpajñapti* or *Bhagavatīśūtra* tells about a visit to Makkhali Gosāla, the founder of the Ājīvikas, by six wandering ascetic philosophers, one of whom was a certain Aggivesāyaṇa.<sup>265</sup>

The Tibetan medical tradition is acquainted with Agniveśa as Me-bzin hjug;<sup>266</sup> he is credited with a medical work belonging to the collection known as Rā-ra-ka sde-brgyad.<sup>267</sup>

Al-Bīrūnī transmits a tradition regarding Caraka as an incarnation of Agniveśa.<sup>268</sup>

The arguments adduced by Indian scholars in support of the thesis that the Agniveśa of the *Carakasamhitā* is the same as the Agniveśa or Agniveśya mentioned in the sources referred to do not carry conviction because a coherent picture does not emerge from the data available. The guru-śiṣya relationship between Ātreya Punarvasu and Agniveśa, characteristic of the *Carakasamhitā*, is not found in non-medical sources; many of the latter describe Agniveśa as a pupil of Bharadvāja, whose connection with Agniveśa is indirect in the *Carakasamhitā*, where Ātreya is instructed by him.<sup>269</sup>

Indian authors base their identification of the Agniveśa of the *Gaṇapāṭha* with the author of the *Agniveśatantra* on the occurrence, next to each other, of the names of Agniveśa, Parāśara and Jatūkarma, three names associated with the medical science;<sup>270</sup> this argument is unconvincing because Agniveśa on the one hand, Parāśara and Jatūkarma on the other, do not form part of one and the same gaṇa;<sup>271</sup> moreover, all three are names of ancient sages associated with many aspects of Indian culture and not with medicine only.

Indian scholars who suppose the Agniveśa of the *Carakasamhitā* to be identical with the Agniveśa or Agniveśya of Vedic literature, the *Gaṇapāṭha*, the *Mahābhārata*, etc., are inclined to place him in a period shortly preceding that of Pāṇini, in the age of the early Upaniṣads, or the period of the *Śatapathabrāhmaṇa*.

An argument often adduced in support of the thesis of Agniveśa's anteriority to Pāṇini is the occurrence of his name in the *Gaṇapāṭha*, in combination with the fact that the city of Takṣaśilā, known to Pāṇini,<sup>272</sup> is nowhere mentioned in the *Carakasamhitā*.<sup>273</sup> This argument strains the evidence in identifying an unspecified Agniveśa with the pupil of Ātreya and in supposing that the presence or absence of geographical names in the *Carakasamhitā* reflects the period of composition of the *Agniveśatantra*. The authors employing this type of reasoning often compare the relationship between the *Agniveśatantra* and the *Carakasamhitā* with that between Pāṇini's *Aṣṭādhyāyī* and the *Mahābhāṣya*,<sup>274</sup> a comparison that obviously falls short.

Another piece of evidence put forward as indicating an early date of the oldest layer of the *Carakasamhitā*, associated with Agniveśa, is the absence of the seven-day week of the solar calendar and the names of the days of the week called after their presiding planets. A number of Indian authors assume that the seven-day week was introduced about one thousand years before the beginning of the Śaka era (A.D. 78);<sup>275</sup> its absence would thus corroborate that the *Agniveśatantra* dates from about 1.000 B.C. Actually, the solar calendar, imported with Western astronomy, was known from Gupta times onwards and did not oust the old luni-solar calendar, which invalidates the argument.<sup>276</sup>

Evidence taken from the contents of the *Carakasamhitā* and considered by Indian

scholars to prove the antiquity of the *Agniveśatantra* is discussed in the chapter on the *Carakasamhitā*.

Most Indian scholars conclude that Agniveśa, the author of the *Agniveśatantra*, belongs to Upaniṣadic times or the period of the *Śatapathabrāhmaṇa* and lived about 1.000 B.C.<sup>277</sup>

P. Cordier<sup>278</sup> supposed Agniveśa to have been a Buddhist who lived six centuries before Caraka.

### Dr̥ḍhabala

Dr̥ḍhabala<sup>279</sup> is the author who completed the *Carakasamhitā*, as attested by himself. He states in the last chapter of the *Cikitsāsthāna* (Ci.30.289–290): “Since seventeen chapters, and also those of the *Kalpa* and *Siddhi* (sections), of Agniveśa’s tantra as revised by Caraka, are not available, Dr̥ḍhabala, the son of Kapilabala, wrote these missing portions, in order to truthfully complete this important treatise”; in the last chapter of the *Siddhi*sthāna (Si.12.36cd–40ab) he expresses himself in the following words: “A redactor (*saṃskartar*) enlarges what is concisely stated and abridges prolixities, making an old treatise thus up-to-date again; in that way, this excellent treatise, full of truth, redacted by the very learned Caraka, but seen to be incomplete by one-third (*tribhāgena*), was fully restored, after propitiating Śaṃkara, the lord of living beings, by Dr̥ḍhabala, born in Pañcanadapura; he gleaned a mass of relevant information (*viśeṣoñchaśīlocaya*) from many books, filling with it seventeen chapters on treatment (*auśadhādhyāya*), the *Kalpa*(sthāna) and the *Siddhi*(sthāna)”.

Dr̥ḍhabala’s own words do not specify which chapters of the *Cikitsāsthāna* were available to him and which chapters were missing from Caraka’s text. The obvious assumption that the last seventeen chapters are meant is only justifiable if all the evidence that can be collected agrees. A preliminary question, however, presents itself first: what is the correct order of the chapters of the *Cikitsāsthāna*.<sup>280</sup> Two different arrangements are known from MSS and editions. The most current order, adopted first by N.N. Sengupta and B.C. Sengupta,<sup>281</sup> followed by Gaṅgādhara, has: (1) *rasāyana*, (2) *vājīkaraṇa*, (3) *jvara*, (4) *raktapitta*, (5) *gulma*, (6) *prameha*, (7) *kuṣṭha*, (8) *rājayakṣman*, (9) *unmāda*, (10) *apasmāra*, (11) *kṣataksīṇa*, (12) *śvayathu*, (13) *udara*, (14) *arśas*, (15) *grahaṇī*, (16) *pāṇḍuroga*, (17) *hikkā* and *śvāsa*, (18) *kāsa*, (19) *atīṣāra*, (20) *chardī*, (21) *visarpa*, (22) *ṛṣṇā*, (23) *viṣa*, (24) *madātyaya*, (25) *dvivraṇīya*, (26) *trimarmīya*, (27) *ūrustambha*, (28) *vātavyādhi*, (29) *vātaṣoṇita*, (30) *yomivyāpad*.<sup>282</sup> The second arrangement, adopted by Jīvānanda Vidyāsāgara,<sup>283</sup> differs in the order of chapters nine to twenty-five: (9) *arśas*, (10) *atīṣāra*, (11) *visarpa*, (12) *madātyaya*, (13) *dvivraṇīya*, (14) *unmāda*, (15) *apasmāra*, (16) *kṣataksīṇa*, (17) *śvayathu*, (18) *udara*, (19) *grahaṇī*, (20) *pāṇḍuroga*, (21) *hikkā* and *śvāsa*, (22) *kāsa*, (23) *chardī*, (24) *ṛṣṇā*, (25) *viṣa*. Opinions differ concerning the answer to the question which arrangement should be regarded as the original one. The views expressed are related to the problem which chapters are to be ascribed to Dr̥ḍhabala.

Various types of evidence can contribute to the settlement of this question.<sup>284</sup> The two serial orders known agree with regard to the eight initial and the five concluding

chapters. The former are uniformly seen as belonging to the *Carakasamhitā* before its revision and completion by Drḍhabala, which is in conformity with the chapter colophons and Cakrapāṇidatta's comments on Ca.Ci.30.289–290.<sup>285</sup> The five concluding chapters are uniformly attributed to Drḍhabala, in agreement again with the colophons and Cakrapāṇidatta's remarks. Quotations from Drḍhabala confirm that these chapters form part of his contributions.<sup>286</sup>

The authorship of chapters nine to twenty-five is in need of clarification.

Chapters nine to twelve<sup>287</sup> were written by Drḍhabala according to the colophons and Cakrapāṇi's remarks. The same applies to chapter thirteen (udara).<sup>288</sup> Chapter fourteen (arśas) derives from Caraka, as indicated in the colophon and by Cakrapāṇi. Chapter fifteen (grahāṇī) is by Drḍhabala, as demonstrated by the colophon, Cakrapāṇi's remarks, and quotations by Aruṇadatta and Śrīdāsapaṇḍita. Chapters sixteen (pāṇḍuroga) and seventeen (hikkā and śvāsa) are also by Drḍhabala, as attested by the colophons, Cakrapāṇi, and the quotations found in the commentaries of Vijayarakṣita and Vācaspati. The authorship of chapter eighteen (kāsa), attributed to Drḍhabala in the colophon and by Cakrapāṇi, is not confirmed by one or more quotations.<sup>289</sup> Chapter nineteen (atisāra) is by Caraka, as pointed out in the colophon and the commentaries of Cakrapāṇi and Indu.<sup>290</sup> Chapter twenty (chardi) is by Drḍhabala according to the colophon and Cakrapāṇi. Chapter twenty-one (visarpa) is by Caraka on the basis of the same evidence. Chapter twenty-two (trṣṇā) is ascribed to Drḍhabala in the colophon, as well as by Cakrapāṇi, Niścāla, Vācaspati and Vijayarakṣita. Chapter twenty-three (viṣa) is by Drḍhabala according to Cakrapāṇi, Vācaspati and Vijayarakṣita, but the colophon fails to mention his name. Chapter twenty-four (madātṛaya) is attributed to Caraka in the colophon and by Cakrapāṇi.<sup>291</sup> The authorship of chapter twenty-five (dvivraṇīya) is problematic; the colophon mentions Drḍhabala, whereas Jejjata and Cakrapāṇi regard it as deriving from Caraka.

The above data permit to conclude with certainty that Drḍhabala's contributions to the Cikitsāsthāna consist of chapters nine to thirteen, fifteen to eighteen, twenty, twenty-two, and twenty-six to thirty, which makes a total of sixteen chapters. The seventeenth chapter is either twenty-three (viṣa), ascribed to Drḍhabala by Cakrapāṇi and other commentators, or twenty-five (dvivraṇīya), written by Drḍhabala according to the colophon. The relative weight of the evidence points to chapter twenty-three as a contribution of Drḍhabala, because the chapter colophons, being later additions, cannot be relied upon;<sup>292</sup> this is confirmed by Jejjata, who ascribes chapter twenty-five unhesitatingly to the ācārya, i.e., Caraka.<sup>293</sup>

The Gulabkunverba team agrees in opting for chapter twenty-three on the basis of Vijayarakṣita's quotation from it, and on account of Jejjata's mention of Caraka as the author of chapter twenty-five; the chapter colophons are disregarded.<sup>294</sup> Bira jācaraṇ Sengupta, as quoted by G. Mukhopadhyaya,<sup>295</sup> accepts Jīvaṇanda's views, with one exception: the dvivraṇīya chapter is by Drḍhabala, the udara chapter by Caraka.<sup>296</sup> The majority of other scholars subscribe to the inferences derived from the evidence.<sup>297</sup>

The conclusions reached with regard to the question which chapters of the Cikitsāsthāna were added by Drḍhabala does not solve the problem of the correct order of the chapters of that section. The usual arrangement presents a picture in which five of

Caraka's chapters appear, singly or in a cluster, at various places among those from Drḍhabala's pen, while Jīvānanda's order groups them together. Most scholars regard Jīvānanda's arrangement as a secondary development.<sup>298</sup> This view is supported by the table of contents in chapter thirty of the Sūtrasthāna,<sup>299</sup> the order of the chapters in the Nidānasthāna,<sup>300</sup> and the commentaries of Jejjāta and Cakrapāṇidatta.<sup>301</sup>

Many questions may be raised concerning Drḍhabala's contributions to the *Carakasaṃhitā*. Nothing is known with certainty about the state of Caraka's work in Drḍhabala's times. The latter's remarks convey the impression that part of Caraka's revision of the *Agniveśatantra* had got lost in the course of the ages.<sup>302</sup> The view that Caraka, for some reason, did not complete his work, as supposed by some scholars,<sup>303</sup> is less probable. Drḍhabala himself declares (Ci.30.289–290) that seventeen chapters of the Cikitsāsthāna, and the whole of the Kalpa- and Siddhisthāna of Caraka's revision of Agniveśa's work were not available to him (nāsādyante).<sup>304</sup> This pronouncement implies that he was acquainted with the original extent of the work and that he took it for granted that it was not left unfinished by Caraka. The colophons of the chapters we owe to Drḍhabala confirm this view. Some statements found in chapters written by Caraka may be seen as supporting evidence, albeit that one cannot exclude the possibility of Drḍhabala having made these additions; the Kalpasthāna, for instance, is referred to twice (Sū.4.4;<sup>305</sup> Ci.21.53), the Siddhisthāna is mentioned several times.<sup>306</sup> The table of contents in the last chapter of the Sūtrasthāna may, however, well be due to Drḍhabala.<sup>307</sup>

Most scholars are agreed that Drḍhabala reconstructed the extant part of the *Carakasaṃhitā* and made additions to its text, since he acknowledges this fact himself. The identification of passages that may not have formed part of Caraka's treatise is beset with difficulties.<sup>308</sup> Drḍhabala himself does not inform us of his sources, but Cakrapāṇidatta says that the 'many treatises', referred to by Drḍhabala, consisted of the works of Suśruta, Videha and other authors.<sup>309</sup> Verses found in both *Caraka-* and *Suśrutasaṃhitā* are for that reason by some attributed to Drḍhabala.<sup>310</sup>

A number of scholars, in particular P. Cordier, A.F.R. Hoernle and P.V. Sharma, have tried to identify passages in Caraka's parts of the *Carakasaṃhitā* that may be additions of Drḍhabala. Verses and passages in prose noticed as probably deriving from Drḍhabala are the following: some verses towards the end of Sū.11;<sup>311</sup> the prose portions of Sū.12;<sup>312</sup> the list of one hundred and fifty-two most excellent (agrya) remedial measures, medicinal substances, etc., of Sū.25;<sup>313</sup> the verses on the properties of the water of several rivers (Sū.27.209–212);<sup>314</sup> the already mentioned table of contents of Sū.30;<sup>315</sup> parts of the Nidāna chapter on gulma (Ni.3);<sup>316</sup> some passages of the chapter on epidemics of the Vimānasthāna;<sup>317</sup> the presence of Dhanvantari among a series of gods in the last chapter of the Vimānasthāna (Vi.8.11);<sup>318</sup> the reference to the extraction of a dead foetus by a surgeon (śalyaharta) (Śā.8.31);<sup>319</sup> the list of auspicious objects of the last chapter of the Indriyasthāna;<sup>320</sup> the recommendation to fever patients to recite the thousand names of Viṣṇu (sahasranāmastotra);<sup>321</sup> part of the chapter on the treatment of gulma (Ci.5);<sup>322</sup> the reference to the rise of Agastya in the sky, in connection with the diminution of poisonous elements in rain water (Ci.23.7cd–8);<sup>323</sup> the occurrence of the names of Viṣṇu, Kṛṣṇa and Vāsudeva (Ci.23.91–93);<sup>324</sup> the presence of

elements derived from Tantrism;<sup>325</sup> the verses in praise of alcoholic drinks (Ci.24.3–20).<sup>326</sup> Passages referring to surgery and the dhanvantarīyāḥ are by some regarded as interpolations of Dr̥ḍhabala.<sup>327</sup>

Some peculiarities found in Dr̥ḍhabala's chapters of the *Carakasamhitā* which point to him as an author who lived in the Gupta age are, according to P.V. Sharma: passages reminiscent of treatises on kāmāśāstra (Ci.30.135 and 164);<sup>328</sup> the list of peoples of the last chapter of the Cikitsāsthāna (Ci.30.315–319);<sup>329</sup> the prose style of a passage in chapter one of the Kalpasthāna (Ka.1.8), reminiscent of the prose works of Subandhu and Bāṇa.<sup>330</sup>

P.V. Sharma inclines to the view that Dr̥ḍhabala's list of tantrayuktis (Si.12.41–45ab) has been influenced by the treatment of this subject in the *Kauṭīliya Arthaśāstra*.<sup>331</sup>

P.V. Sharma quotes a list, comprising one hundred and seventy-two items, of medicinal plant names, found in Dr̥ḍhabala's chapters of the *Carakasamhitā*, and absent from those attributed to Caraka himself.<sup>332</sup>

Names of plants mentioned only in Dr̥ḍhabala's chapters of the *Carakasamhitā* are, according to this list: ādityavallī (Ci.26.268),<sup>333</sup> asitasurasa (Ci.18.117),<sup>334</sup> aśvakhuraka (Ci.23.245), aśvāvarohikā (Si.10.37),<sup>335</sup> atiguhā (Ci.23.213),<sup>336</sup> bāhlika (Ci.23.102; 30.91),<sup>337</sup> bahuphenarasā (Ka.11.3),<sup>338</sup> balāhaka (Ci.23.11),<sup>339</sup> bandhujīva (Ci.23.181 and 243),<sup>340</sup> bhṛṅgarāja (Ci.18.117; 26.264; Ka.1.25),<sup>341</sup> bijaka (Ci.16.106),<sup>342</sup> bodhivṛkṣa (Ci.29.158),<sup>343</sup> br̥hatpattra (Ka.9.1),<sup>344</sup> carmakāṣā (Ci.23.66),<sup>345</sup> carmasāhvā (Ka.12.3),<sup>346</sup> cavikā (Ci.18.158; 26.167; 28.168; Si.4.14),<sup>347</sup> cuccū (Ci.23.225),<sup>348</sup> daṇḍairaka (Ci.26.51; Ka.1.25),<sup>349</sup> devatāḍaka (Ka.2.3),<sup>350</sup> ekāsthīlā (Si.10.23),<sup>351</sup> gandhaphalā (Ci.23.57),<sup>352</sup> garāgarī (Ka.2.3; Si.11.12),<sup>353</sup> gaurī (Si.4.21),<sup>354</sup> girikarnikā (Ci.23.195),<sup>355</sup> girimallikā (Ka.5.4),<sup>356</sup> guḍā (Ka.10.8),<sup>357</sup> hālāhala (Ci.23.13),<sup>358</sup> hintāla (Ka.1.8),<sup>359</sup> jālamālīnī (Ci.23.206),<sup>360</sup> kālākūṭa (Ci.23.11),<sup>361</sup> karahāṭa (Ci.26.15),<sup>362</sup> karkāṭa (Ci.23.11),<sup>363</sup> karkotakī (Ka.4.3),<sup>364</sup> karnikāra (Ka.8.3),<sup>365</sup> kāsamarda(ka) (Ci.17.99; 18.117, 161, 163; 30.52; Ka.1.25; 4.17),<sup>366</sup> koṭhaphala (Si.11.12),<sup>367</sup> koṭhaphalā (Ka.4.3), krauñca (Ci.23.11),<sup>368</sup> kṛṣṇacitraka (Ci.26.272),<sup>369</sup> kṛṣṇāguru (Ci.26.270),<sup>370</sup> kṛṣṇapiṇḍita (Ci.26.272),<sup>371</sup> kṛṣṇaśaireyaka (Ci.26.268),<sup>372</sup> kṛṣṇaśana (Ci.26.269),<sup>373</sup> kṣveda (Ka.6.3, 10, 12),<sup>374</sup> kuṅkuma (Ci.23.54, etc.),<sup>375</sup> kunduru(ka) (Ci.26.64; 28.153),<sup>376</sup> kuśapuspaka (Ci.23.12),<sup>377</sup> kutaraṇā (Ka.7.4),<sup>378</sup> lambā (Ci.26.153; Ka.3.3),<sup>379</sup> mahājālinī (Ka.3.17; 4.3),<sup>380</sup> marubaka (Ka.1.23),<sup>381</sup> meghaka (Ci.23.12),<sup>382</sup> mṛdaṅgaphala (Ka.6.3),<sup>383</sup> muṣkaka (Ci.15.189; 26.192, 193),<sup>384</sup> nāgakeśara (Ci.28.154),<sup>385</sup> nalikā (Ci.28.152),<sup>386</sup> nandā (Ka.10.8),<sup>387</sup> navamālikā (Ci.26.184),<sup>388</sup> nistriṇṣapattraka (Ka.10.8),<sup>389</sup> padmacārati (Ci.23.55),<sup>390</sup> pārāvatapadī (Ka.1.23),<sup>391</sup> two types of pāthā (Ci.18.39),<sup>392</sup> pattaṅga (Ci.26.210),<sup>393</sup> piṇḍaphalā (Ka.3.3),<sup>394</sup> pītadāru (Si.9.8; 10.23),<sup>395</sup> poṭa (Ka.1.25),<sup>396</sup> pragraha (Ka.8.3; Si.10.30; 11.24),<sup>397</sup> prasāraṇī (Ci.28.166),<sup>398</sup> pratyakparṇī (Ka.11.14),<sup>399</sup> rājakośātakī (Ka.4.3),<sup>400</sup> rakṣoghna (Ci.26.15),<sup>401</sup> rakṣoghñī (Ci.23.79), raktacandana (Ci.30.92),<sup>402</sup> śābaraka(lodhra) (Ci.15.158),<sup>403</sup> sadāpuṣpī (Ka.1.14),<sup>404</sup> sahā (Ci.28.162),<sup>405</sup> sahacara (Ci.26.264, etc.),<sup>406</sup> sahakāra (Ka.7.31),<sup>407</sup> śakra (Ka.5.4),<sup>408</sup> śambarī (Ka.12.3, additional verse),<sup>409</sup> sarvānubhūti (Ka.7.4),<sup>410</sup> śāvaraka and śāvaraka (Ci.23.55; 26.233),<sup>411</sup> śelu (Ci.23.187, 201, 204),<sup>412</sup> siddhārtha(ka) (Ci.9.69;

15, 135; Si.3.67; 7.25),<sup>413</sup> śitivāra (Ci.26.56, 60),<sup>414</sup> śrīnīvāsaka (Ci.28.153),<sup>415</sup> śuklasurasa (Ci.23.101),<sup>416</sup> sutaśreṇī (Ka.12.3, additional verse),<sup>417</sup> svarṇayūthikā (Si.10.31),<sup>418</sup> śvasana (Ka.1.27),<sup>419</sup> śvetabhaṇḍa (Ci.10.245), śvetabhaṇḍī (Ci.23.210),<sup>420</sup> śvetamarica (Ci.26.245, 246),<sup>421</sup> śvetavacā (Ci.23.70; Si.3.62),<sup>422</sup> tālamūli (Ci.18.75),<sup>423</sup> tiktalā (Ka.11.3),<sup>424</sup> tirīṭaka (Ka.9.3),<sup>425</sup> trigandhaka (Ci.16.89),<sup>426</sup> tribhaṇḍī (Ka.7.4),<sup>427</sup> truṭī (Ci.26.55, 64, 87),<sup>428</sup> tuṇṭuka (Ci.23.70),<sup>429</sup> turuṣka (Ci.28.153),<sup>430</sup> uccaṭā (Si.12.19),<sup>431</sup> udumbaraparnī (Ka.12.3),<sup>432</sup> vallīphala (Ci.20.22),<sup>433</sup> vardhamāna(ka) (Ci.17.80; Si.10.19),<sup>434</sup> vatsanābha (Ci.23.11),<sup>435</sup> veṇī (Ka.2.3),<sup>436</sup> vitunnaka (Ci.18.176; 29.94),<sup>437</sup> yavatiktā (Ka.11.3).<sup>438</sup>

Plants to be removed from the list are: amṛtaphala (Ci.7.147), asitā,<sup>439</sup> aśvakarṇaka (Sū.4.17, etc.), bālekṣu,<sup>440</sup> bhṛṅga (Ci.24.181), cañcu (Ci.19.32), dīrghaśūka (Sū.27.8), ervāruka (Sū.27.110, 111), gr̥ṇjanaka (Sū.27.174, etc.), kākāhvā (Ci.21.90), kaṇā,<sup>441</sup> kāntā,<sup>442</sup> kardama,<sup>443</sup> karkāruka (Ci.19.32), karkaṭaka (Ci.14.90), karkaṭikā (Ci.19.104), karpūra (Sū.5.77), kāśmarī (Sū.2.11; 4.16, 17, etc.: kāśmarya), kharāśvā (Sū.23.15: kharāhvā), kośātaka (Ci.7.119, etc.: kośātaki), kṛṣṇaparnāśa,<sup>444</sup> kṛṣṇatila,<sup>445</sup> kuraṇṭaka (Ci.21.89), lavaṅga (Sū.5.77), mahāpattra (Ci.14.124), pāṭali (Ci.1.62, etc.), phalī (Ci.14.189, etc.: phalīnī), phenilā (Ci.24.161), piṇḍī (Ci.14.10), pratyakpuṣpā (Sū.1.82, 85, etc.), śāla (Sū.4.18, etc.) śālīparṇī (Sū.2.11, 20; 4.13, 16, etc.: śālaparnī), śamyāka (Ci.3.144, etc.: śampāka), sātalā (Sū.1.77, etc.: saptalā), sindhuvārikā (Sū.3.28, etc.: sindhuvāra), śītapākya (Ci.3.258), sūryaparnī (Ci.1.43, etc.: śūrpaparnī), śvetaśālī (Ci.21.80 and 113), tiṇṭikera (Ci.14.10), vījāṭaka (Ci.24.128), utkuñcikā,<sup>446</sup> vamaśalekhana or -locana (Ci.18.73; 23.71),<sup>447</sup> varī (Ci.19.62), vijayā (Ci.25.47), vṛṣakarṇikā (Sū.4.11: vṛṣaparnikā), vyāghrī (Sū.5.65).

A much shorter list, compiled by P.V. Sharma himself, consists of the following twenty-four plant names: bāhlika, bhṛṅgarāja, bījaka, bodhivṛkṣa, cavikā, dvimadhūka, karpūra, kṛṣṇacitraka, lavaṅga, nāgakeśara, phenilā, prasāraṇī, raktacandana, sahakāra, śrīnīvāsaka, śvetamarica, śvetavacā, tālamūli, trijāṭaka, tuṇṭuka, turuṣka, uccaṭā, vatsanābha, and yavatiktā.<sup>448</sup>

These lists are not exhaustive. The remaining plant names occurring in Dṛḍhabala's chapters only are: akṣipīda(ka) (Ci.23.215, 216; Ka.11.3),<sup>449</sup> amaradāru (Ci.12.43, 53; 13.147; Si.3.58, 67),<sup>450</sup> ambuda (Si.3.63),<sup>451</sup> amburuha (Ci.22.37),<sup>452</sup> amśumatī (Ci.28.96; 29.80),<sup>453</sup> annapākin (Si.12.19),<sup>454</sup> apetarākṣaśī (Ci.10.39),<sup>455</sup> bahuphenarasā (Ka.1.13),<sup>456</sup> buka (Ci.30.82),<sup>457</sup> cārāṭī (Ci.9.45),<sup>458</sup> gajajippalī (Ci.12.41; Ka.7.15),<sup>459</sup> gaurāmālaka (Ci.18.184), ghana (Ci.15.165; 16.87; 26.190, 198, 208; Si.3.37; 8.19),<sup>460</sup> granthī(ka) (Ci.16.73; 23.52; 27.45),<sup>461</sup> guhā (Ci.23.213),<sup>462</sup> hayagandhā (Ci.28.173),<sup>463</sup> hemadugdhā (Ka.12.23),<sup>464</sup> hiṅgupattrikā (Ci.9.66),<sup>465</sup> indrāyudha (Ci.23.12),<sup>466</sup> jātikośa (Ci.26.210; 28.152),<sup>467</sup> jayā (Ci.9.45),<sup>468</sup> kāñcarakṣīrī (Ci.13.133),<sup>469</sup> kapikacchū (Ci.9.80; 11.62; 24.125, 160),<sup>470</sup> karavīra (Ci.23.11),<sup>471</sup> karkaṭāhvayā (Ka.7.18), karkaṭākhya (Ci.17.94), karkaṭākhya (Ci.18.118, 173, 177; 28.160; Si.4.10),<sup>472</sup> katabhī (Ci.9.70; 10.33; 15.188; 23.66, 79, 187, 213, 245),<sup>473</sup> kaṭambharā (Ci.9.47),<sup>474</sup> kaṭutumba (Si.11.6),<sup>475</sup> kauntī (Ci.9.35; 12.65; 23.55; Si.8.13),<sup>476</sup> kāyasthā (Ci.9.57; 10.46, 48; 17.141; 26.83),<sup>477</sup> kuṣṭhaghna (Ci.23.54),<sup>478</sup> kūṭaraṇā (Ka.7.4),<sup>479</sup> madhuyaṣṭī (Ci.23.196; 29.91), madhuyaṣṭikā (Ci.16.100; 29.107),<sup>480</sup> mahāpuruṣadantā (Ci.9.46),<sup>481</sup> markāṭa (Ci.23.13),<sup>482</sup> markāṭī

(Ci.9.45),<sup>483</sup> mayūraka (Ci.12.23; 23.57),<sup>484</sup> mustaka (Ci.23.11),<sup>485</sup> nīlī (Ci.18.87; 26.271; Ka.7.34),<sup>486</sup> nyagrodhī (Ka.12.3),<sup>487</sup> pālaka (Ci.23.12),<sup>488</sup> palāśā (Si.3.38, 65),<sup>489</sup> phalāmī (Ci.11.80),<sup>490</sup> pītadru (Ci.10.43; 12.25; 17.110; 26.97; Si.4.29),<sup>491</sup> prthakpamī (Ci.11.44; 18.77),<sup>492</sup> pullāsa (Ci.30.82),<sup>493</sup> puṇḍarīka (Ci.23.12),<sup>494</sup> pūtanākēśī (Ci.9.45; 10.34, 39),<sup>495</sup> pūṭīkakarāñja (Ci.26.23),<sup>496</sup> raktamūlī (Si.10.31),<sup>497</sup> raṇḍā (Ka.12.4),<sup>498</sup> rasa (Ci.28.152),<sup>499</sup> samkoca (Ci.23.13),<sup>500</sup> sitagiri (Ci.23.95),<sup>501</sup> śṛṅgiṣa (Ci.23.13),<sup>502</sup> śūkarī (Ci.9.46),<sup>503</sup> taila (Ci.23.12),<sup>504</sup> trāyanti (Ci.12.53; Ka.7.59; Si.3.36), trāyantikā (Ci.29.58; Si.3.62),<sup>505</sup> tridaśāhva (Ci.28.162),<sup>506</sup> tumbī (Ci.26.15; Ka.3.3, 11, 15, 19),<sup>507</sup> tuvara (Ci.30.124),<sup>508</sup> tvakkṣīrī (Ci.11.17, 20, 54, 62; 15.164; 16.89; 18.88, 104, 146, 176; 29.64, 152; Si.12.19),<sup>509</sup> ugragandhā (Ci.26.22),<sup>510</sup> vāmśī (Ci.11.33, 58; 18.89),<sup>511</sup> vāyasapīluka (Ci.23.217),<sup>512</sup> vāyāsī (Ci.12.63; 18.81; 23.53; 27.27).<sup>513</sup>

The data collected so far does not give us a clear picture of Drḍhabala's methods in completing and revising the extant parts of the *Carakasamhitā*. We cannot even be sure that the MSS and editions faithfully reproduce his text. Aruṇadatta and Śrīdāsapaṇḍita quote fourteen verses of Drḍhabala, the first one of which only is found in our text of the *Carakasamhitā*,<sup>514</sup> which may be interpreted as pointing to either an originally longer version or later additions.

Generally, the chapters written by Drḍhabala are undistinguishable from those we owe to Caraka, as to their style and language,<sup>515</sup> which explains the uncertainties of earlier scholars with regard to the question which chapters can safely be ascribed to the one or the other author. The studies so far available on peculiarities of Drḍhabala's contributions are largely bound up with investigations into his chronological position. Less attention has been paid to disagreements between views expressed by Caraka and Drḍhabala. One such contradiction has already been noticed by Cakrapāṇidatta, and, in his wake, Śivadāsasena. These commentators, examining statements concerning the number of days during which fatty substances should be administered, prior to sudation, discovered that Caraka's and Drḍhabala's views conflict with each other.<sup>516</sup> The difference, explained away by Cakrapāṇi and Śivadāsa, may find its origin in Suśruta's influence on Drḍhabala.<sup>517</sup>

Inconsistencies within Caraka's parts of the *Carakasamhitā* may point to interpolations by Drḍhabala. An example, discovered by A.F.R. Hoernle,<sup>518</sup> is the description of raktagulma in chapter five of the Cikitsāsthāna, while this disorder is absent from chapter three of the Nidānasthāna. The addition of raktagulma may be accounted for by borrowing from a surgical treatise.<sup>519</sup>

The reference to Kṛṣṇātreya at the end of chapter eleven of the Sūtrasthāna, attributed to Ātreya at its beginning, is by some regarded as due to Drḍhabala's pen.<sup>520</sup> The same chapter exhibits some more incongruities that are suggestive of the activity of a reviser.<sup>521</sup>

The question has now to be asked where Drḍhabala gleaned his information from. His own statement about his sources is vague (Si. 12.36cd–40ab). Cakrapāṇidatta identifies them as the treatises of Suśruta, Videha and others, which cannot be regarded as a satisfactory answer. Cakrapāṇi obviously refers to Suśruta as a representative of śālyā and to Videha as a śālākya specialist, but omits to name authors on kāyacikitsā who

must have been among Dṛḍhabala's sources for his chapters on internal medicine.

A preliminary problem, namely whether or not Dṛḍhabala could still dispose of fragments of largely lost parts of Caraka's treatise, is unsolvable. He could, however, avail himself of the original version of the table of contents in the last chapter of the Sūtrasthāna, provided that such a table was already present there. Another source may have been the old version of the *Bhelasamhitā*, a work belonging to the school of Ātreya and showing many similarities with the *Carakasamhitā*.<sup>522</sup>

Cakrapāṇi's reference to Suśruta raises the question whether this remark is trustworthy, and, if so, which version of the *Suśrutasamhitā* was known to Dṛḍhabala, the original text or the revised one. P.V.Sharma inclines to the view that Dṛḍhabala made use of the old version of the *Suśrutasamhitā*, before a reviser had reshaped it; he also suggested that this reviser, in his turn, had recourse to Dṛḍhabala's version of the *Carakasamhitā*.<sup>523</sup> The problems connected with this question will be discussed in the context of Dṛḍhabala's date.

Cakrapāṇi's mention of Videha as an author from whom Dṛḍhabala borrowed is confirmed by the former's comments on the latter's opinion about the number of diseases of the mouth (mukharoga) to be distinguished.<sup>524</sup> Dṛḍhabala prefers Videha's number of sixty-four to the number of sixty-five, acknowledged by Suśruta, in agreement with Bhoja.<sup>525</sup> The number of Dṛḍhabala's diseases of the ear (karṇaroga), namely four, completely disagrees with Suśruta's number of twenty-eight.<sup>526</sup>

The text of the *Carakasamhitā* also proves unequivocally that the list of Dṛḍhabala's sources comprises more names than those of Suśruta and Videha. Dṛḍhabala deviated from both Videha and Suśruta in recognizing ninety-six eye diseases, the number described by Karāla.<sup>527</sup>

A special problem concerning Dṛḍhabala's activities is posed by the so-called Kāśmīrapāṭha of the *Carakasamhitā*, known from quotations, and by some regarded as the original text written by Dṛḍhabala.

The Kāśmīrapāṭha and the kāśmīrāṇ are quoted or referred to by Ādhamalla,<sup>528</sup> Cakrapāṇidatta,<sup>529</sup> Jejjata,<sup>530</sup> Nīścalakara,<sup>531</sup> Śivadāśasena,<sup>532</sup> Śrīkaṇṭhadatta,<sup>533</sup> Vācaspati,<sup>534</sup> and Vijayarakṣita.<sup>535</sup>

The available evidence shows that the text of the editions of the *Carakasamhitā* presents us with a number of problems. The recorded readings of the Kāśmīrapāṭha sometimes agree and sometimes disagree with the edited text. The attitude of the commentators towards the Kāśmīra text varies slightly; the majority of the Kāśmīra readings are unacceptable to them.

A survey of the data may elucidate the problems we are faced with. One of the items mentioned in Ca.Sū.3.3, the bark (tvac) of karavīra, is read as karavīra(ka) by the Kāśmīras according to Nīścala and Śivadāśasena,<sup>536</sup> who add that the Gauḍīyas regard karavīratvac as the proper reading. Cakrapāṇi gives no comment on karavīratvac.

The pipe for inhaling medicinal smoke should be trikoṣāphalita<sup>537</sup> according to the text of the *Carakasamhitā* (Sū.5.50). Śivadāśasena remarks that the Kāśmīras prefer it to be trikoṣa and acchidra (without holes).

The editions of the *Carakasamhitā* give Ci.3.91–102 as part of the text and do not place it between brackets. Vijayarakṣita and Vācaspati<sup>538</sup> regard these verses as be-



longing to the Kāśmīrapāṭha; Jejjāta passes them over in silence; Cakrapāṇi may refer to them as read and explained by some, but superfluous in his view, which explains that he does not comment on them.<sup>539</sup> The thirteen saṃnipāta fevers characterized in Ci.3.90–102 are absent from the Suśrutasaṃhitā and Vāgbhaṭa's works.

Cakrapāṇi states that Ci.3.117 is a verse read by the Kāśmīras at this place, but rejected by others. His own judgment is not recorded. Jejjāta does not comment on the verse, which gives the impression that it was absent from his text.

Cakrapāṇi also informs us that Ci.3.119cd–128ab are only read by the Kāśmīras and not well known (nātriprasiddha). Jejjāta ignores these verses.

Jejjāta regards the two recipes of Ci.3.210–214 as unauthoritative (anārṣa); they are found in the text of the Kāśmīras and Saindhavas. Cakrapāṇi's remarks indicate that he was aware of the anomalous position of the verses, without rejecting them.

Vijayarakṣita and Vācaspati<sup>540</sup> record a variant of Ci.8.52b, preferred by the Kāśmīras. Cakrapāṇi is silent on this issue. Jejjāta's commentary on Ci.8 has not been preserved.

Cakrapāṇi declares that Ci.10.54cd–63, acceptable to the Saindhavas and Kāśmīras, are unauthoritative according to the ancient authorities. Jejjāta's comments are not available. The verses describe the aetiology, symptoms and treatment of a curious disease, called atattvābhinivēśa, referred to in the Sūtrasthāna (19.4). The stanzas are out of place in the chapter on the treatment of apasmāra. The disorder is not described elsewhere in the Carakasamhitā.<sup>541</sup>

Nīścalakara<sup>542</sup> records a slight variant of Ci.13.69ab, preferred by the Kāśmīras.

Cakrapāṇi records a variant of Ci.13.113, read in the Kāśmīra(pāṭha); this variant concerns the ratios of the ingredients of the recipe. The same variant is attributed to the Kāśmīras by Nīścala.<sup>543</sup> Jejjāta's commentary on Ci.13 has not been preserved.

Vijayarakṣita<sup>544</sup> discloses that the Kāśmīras took exception to the neuter gender of viṣ and made it feminine. Jejjāta's comments are not available. Cakrapāṇi remarks that viṣ is sometimes a neuter noun.

Cakrapāṇi mentions a variant of Ci.25.41c, reading sneha instead of taila. This variant, accepted by the Kāśmīras, is not referred to in Jejjāta's commentary.

Vijayarakṣita's comments ad *Mādhavanidāna* 14.2 (= Ca.Ci.26.125) show that the Kāśmīras preferred a variant, of minor importance, that is also found in some of the MSS. Cakrapāṇi has no remarks on this variant. Jejjāta's comments are not available.

Cakrapāṇi's comments on Ci.30.127cd–132 are interesting. He justifies his remarks by saying that, although the genuineness of Ci.30.128cd–132 is disputed, these verses are accepted by the Kāśmīras and others. Jejjāta gives even more information, stating that Ci.30.128cd–132, read by the Kāśmīras and Saindhavas, repeat what has already been discussed elsewhere; he concludes that the verses are to be rejected and that Dr̥ḍhabala's text should be adhered to.

Cakra mentions a variant, read by the Kāśmīras, in his comments ad Ca.Si.12.16; his remark gives the impression that he disapproved of their reading.<sup>545</sup>

Āḍhamalla's commentary on the *Śārngadharaśamhitā* contains decisive evidence (ad III.8.2). This author reveals that a verse on the varieties of nasya (errhine) to be distinguished, read by the Kāśmīras, conflicts with the corresponding verse of Dr̥ḍhabala

(Si.9.89). The verse, quoted by Āḍhamalla, is also found in Niścāla's *Ratnaprabhā*.<sup>546</sup>

A variant, accepted by the Kāśmīras, and dealing with the quantity of guḍa to be used in a particular recipe, is recorded in the *Kusumāvalī*<sup>547</sup> and Niścāla's *Ratnaprabhā*.<sup>548</sup> This reference is problematic because the recipe, called māṇibhadramodaka, is not found in the *Carakasamhitā*.<sup>549</sup>

Some more readings and interpretations of the Kāśmīras, not yet located in the *Carakasamhitā*, are found in the *Ratnaprabhā* ad jvara 256–257, raktapitta 66–73, gulma 41–42, and kuṣṭha 6–7.

This survey of the available material proves unequivocally that the Kāśmīrapāṭha is not identical with Dṛḍhabala's text at all, being a version of the *Carakasamhitā* that was current in Kāśmīr and comparable with the versions of the Saindhavas, Gauḍīyas, etc.<sup>550</sup>

The information we have on the Kāśmīrapāṭha shows that the editions of the *Carakasamhitā* are unsatisfactory in incorporating verses that did not form part of Dṛḍhabala's text. Our knowledge concerning the MSS of the *Carakasamhitā* leaves very much to be desired, but it may well be that they vary in the extent to which they adhere to Dṛḍhabala's text or to one of the regional versions.<sup>551</sup>

Dṛḍhabala is quoted or referred to by Āḍhamalla,<sup>552</sup> Aruṇadatta,<sup>553</sup> Āśubodha Vidyābhūṣaṇa's commentary on the *Paribhāṣāpradīpa*,<sup>554</sup> the author of the *Āyurvedā-bdhisāra*,<sup>555</sup> Bhāvamīśra,<sup>556</sup> Cakrapāṇidatta,<sup>557</sup> Dalhaṇa,<sup>558</sup> Gayadāsa,<sup>559</sup> Gaṅgādhara,<sup>560</sup> Gopālādāsa in his *Cikitsānīṭa*, Govindasena in his *Paribhāṣāpradīpa*,<sup>561</sup> Hārāṇacandra,<sup>562</sup> Indu<sup>563</sup> Jejjāta,<sup>564</sup> Karanāḍikar in his *Nidānaprakāśikā*,<sup>565</sup> Nāganātha in his *Nidānapradīpa*, Narahari in his *Vāgbhaṭamaṇḍana*,<sup>566</sup> Niścālakara,<sup>567</sup> Śivādāsasena,<sup>568</sup> Śrīdāsapaṇḍita,<sup>569</sup> Śrīkaṇṭhadatta,<sup>570</sup> Vācaspati,<sup>571</sup> and Vijayarakṣita.<sup>572</sup> He is also quoted by the unknown author of the interpolated portion of Niścāla's *Ratnaprabhā*.

Dṛḍhabala is usually referred to by his name, but Niścālakara also calls him Dṛḍhaprabhu,<sup>573</sup> Carakapariśiṣṭakāra,<sup>574</sup> and Carakapariśiṣṭakṛt.<sup>575</sup> Niścāla mentions Dṛḍhabala's version of the *Carakasamhitā* as *Carakavākyapratīṣṭakāra*,<sup>576</sup> *Dṛḍhabala-saṃskāra*,<sup>577</sup> and *Dṛḍhabalagrantha*.<sup>578</sup>

Dṛḍhabala himself tells us that he was a son of Kapilabala<sup>579</sup> and was born in Pañcanadapura.<sup>580</sup> The identity of Kapilabala is a matter of dispute<sup>581</sup>; some regard him as identical with the medical authority called Kapila.<sup>582</sup>

The location of Pañcanadapura has been discussed by a number of scholars. The majority assume it to be the name of a city or region in either the Pañjāb or Kāśmīr, while a few consider it to be Vārāṇasī.

U.Ch. Dutt<sup>583</sup> may have been the first author to put forward that Pañcanada means the Pañjāb. This suggestion, not supported by arguments, but probably based on the similarity of the five rivers (nada) of Pañcanada with those of the Pañjāb, was adopted by P. Cordier,<sup>584</sup> J. Jolly,<sup>585</sup> and V. Śukla.<sup>586</sup> P. Cordier was more specific than U.Ch. Dutt in asserting that Pañcanadapura is the same as a place called Pañjpur, to the north of Attock in the Pañjāb.<sup>587</sup> A.F.R. Hoernle, who corresponded with P. Cordier on this matter, asked M.A. Stein to provide him with more details. The latter replied that there is no Pañjpur in the region of Attock; a Muslim place of pilgrimage, known as Pañjpur,

NNW of Attock, appeared to have caused the confusion.<sup>588</sup>

A.F.R. Hoernle was convinced that there was really no reason to connect Pañcanada with the Pañjāb. He also stressed that Dr̥ḍhabala refers to his birthplace as a definite locality (*pura*), not as a region. He added that several places are known which are called Pañcanada. One of them, mentioned in the *Skandapurāṇa* (Kāśīkhaṇḍa)<sup>589</sup> is a sacred place in the region of Vārāṇasī; this may well be the locality meant by Gaṅgādhara in his commentary on the *Carakasamhitā* as the native place of Dr̥ḍhabala.<sup>590</sup> Hoernle further remarked that a place called Pañcanada appears to have once existed in Kaśmīr, near the confluence of the rives Jhelam (Vitastā) and Sindhu; its place is indicated by the village of Pantzinōr, which lies close to what was the original site of that confluence in the later half of the ninth century, in the reign of king Avantivarman.<sup>591</sup> Hoernle concluded that this Pañcanada in Kaśmīr must have been Dr̥ḍhabala's home.<sup>592</sup>

Hoernle's identification of Pañcanada as a place in Kaśmīr, accepted by many later authors,<sup>593</sup> is no more than a guess, not supported by solid evidence, and obviously connected with his belief that the Kaśmīrapāṭha is the same as Dr̥ḍhabala's version of the *Carakasamhitā*; his late date of Dr̥ḍhabala may also have influenced his views on the identity of Pañcanada.

A fanciful theory has been advanced by G. Hāldār.<sup>594</sup> This author assumed that Dr̥ḍhabala's father, a paṇḍit born in Kaśmīr, moved, later in life, to the Pañjāb, and settled in Lavapura (i.e., Lahore), where his children were born. In his view, Pañcanadapura cannot be but Lavapura, because Pañcanada designates the Pañjāb and Lavapura is the *pura* of this region. He counters the identification of Pañcanadapura with Vārāṇasī by the arguments that the latter city is a *purī*, not a *pura*, and that the rivers of Vārāṇasī are referred to as *nadī*, not *nada*.<sup>595</sup>

Dr̥ḍhabala's chronological position is a much discussed topic, about which conflicting opinions have been advanced.

A.F.R. Hoernle tried to establish that Dr̥ḍhabala borrowed from the *Siddhayoga*.<sup>596</sup> As an example, he pointed to Ca.Ni.3.17, identical with *Siddhayoga* 30.2, and supposed this stanza to be an interpolation of Dr̥ḍhabala, because it duplicates in verse the prose directions of Ca.Ni.3.16. Hoernle arrived at this conclusion by a complex reasoning: the author of the *Aṣṭāṅgasamgraha* compressed in prose (A.s.Ci.16.2) the substance of Caraka's versified remarks in his chapter on the treatment of *gulma* (Ca.Ci.5.20–26); afterwards, the author of the *Siddhayoga* turned the compressed prose version once more into verse (30.1–4); still later, Dr̥ḍhabala added the prose of the *Aṣṭāṅgasamgraha* and one of the verses of the *Siddhayoga* to Caraka's chapter on the *nidāna* of *gulma*,<sup>597</sup> without realizing, not only that the prose and verse versions are duplicates, but that both these versions are actually duplicates of Caraka's own genuine verses in his chapter on the treatment of *gulma*.<sup>598</sup>

Hoernle's train of thought does not carry conviction. The *Siddhayoga* contains many verses found in the chapters of the *Carakasamhitā* that derive from Dr̥ḍhabala; it is unacceptable to assume that all this material occurred primarily in the *Siddhayoga* and was put to use by Dr̥ḍhabala. Not a single instance can be discovered in the commentaries that would confirm Hoernle's hypothesis. On the contrary, the *Kusumāvalī*, for example, has a remark, indicating that a particular recipe, useful against *unmāda*,

was explained by Jejjāta, which means that it was borrowed from Dr̥ḍhabala's chapter on the treatment of this disorder.<sup>599</sup> Decisive evidence, overlooked by Hoernle, is the presence in the *Siddhayoga* of the new diseases described by Mādhava, which were unknown to Dr̥ḍhabala.

Hoernle also claimed that Dr̥ḍhabala made use of the *Mādhavanidāna*, unaware as he was of Mādhava's innovations in the field of nosography. An example is his allegation that the verses on the nidāna of gulma in Ca.Ci.5 derive from Mādhava, who versified the prose on this subject in Ca.Ni.3 and incorporated his verses in his *Mādhavanidāna* (28.6–14 = Ca.Ci.5.9–17), from which work Dr̥ḍhabala borrowed them.<sup>600</sup> Hoernle's contention that Dr̥ḍhabala is posterior to Mādhava, because the latter was unacquainted with the Kāsmīrapāṭha, is invalidated by the fact that Dr̥ḍhabala is not, as supposed by Hoernle, the author of the Kāsmīr recension.<sup>601</sup>

The number of ninety-six eye diseases, acknowledged by Dr̥ḍhabala (Ci.26.129–131), does not, as Hoernle suggested, mean that he obtained that number by accepting the ninety-four diseases of the eye mentioned by Vāgbhaṭa and adding the two extra disorders of Mādhava.<sup>602</sup> Cakrapāṇidatta clarifies this issue by giving the information that Dr̥ḍhabala followed Karāla's system in this matter.<sup>603</sup>

The assertion that Dr̥ḍhabala borrowed from the *Siddhayoga* is contradicted by the fact that none of the numerous verses from Dr̥ḍhabala's chapters of the *Carakasamhitā* in Vṛnda's work is ascribed to that author in the commentary. The same applies to the *Mādhavanidāna* and its commentaries. Vijayarakṣita states straightforwardly that Mādhava included one of Dr̥ḍhabala's verses in his treatise as a complement to a verse found in the *Suśrutasaṃhitā*. Hoernle's assertion that Vijayarakṣita's object was not to make a chronological, but an exegetical statement, was undoubtedly prompted by his need to explain away a fact running counter to his theory.<sup>604</sup>

An important piece of evidence regarding Dr̥ḍhabala's date is provided by the references to Dr̥ḍhabala in Jejjāta's commentary on the *Carakasamhitā*. As Jejjāta belongs to the seventh or eighth century, these references confirm that Dr̥ḍhabala preceded Mādhava and Vṛnda. This is corroborated by what is known about a commentary on Dr̥ḍhabala's text by Āśādhavarman, who preceded Jejjāta.

Not yet clear is the question whether or not Bhaṭṭārahariścandra, a commentator on the *Carakasamhitā* who lived earlier than Jejjāta, was conversant with Dr̥ḍhabala's work.

The relationship between Dr̥ḍhabala and the works ascribed to Vāgbhaṭa was discussed by Hoernle, who held that the *Aṣṭāṅgasamgraha* was put to use by Dr̥ḍhabala, whereas the *Aṣṭāṅgahrdayasaṃhitā* was not yet known to him.

Hoernle developed his arguments from a comparison of the chapters on gulma in the *Carakasamhitā*, *Aṣṭāṅgasamgraha* (attributed by him to Vāgbhaṭa I) and *Aṣṭāṅgahrdayasaṃhitā* (attributed to Vāgbhaṭa II, and supposed to be later than his namesake). His assertion that Ca.Ni.3.16 must be regarded as Dr̥ḍhabala's version of A.s.Ci.16.2 stems from his thesis that the former passage is an interpolation and cannot have belonged to Caraka's original text, a supposition resulting from Hoernle's belief that Caraka's text was devoid of inconsistencies. The same line of thought made Hoernle claim that Ca.Ci.5.172–182 consists of Dr̥ḍhabala's versification of a passage in prose

found in A.s.Ci.16.<sup>605</sup>

Hoernle's convictions about Caraka's consistency and systematic mind have, however, no sound basis and rest on a preconceived idea.

His notion that Dr̥ḍhabala arrived at his number of ninety-six eye diseases by adding the two extra disorders of Mādhava to the ninety-four of the *Aṣṭāṅgasamgraha* has already been referred to.

P.V. Sharma disagrees with Hoernle in regarding the *Aṣṭāṅgasamgraha* as a work of a later date than Dr̥ḍhabala. He argues that the succinct treatment of pañcakarman in the *Aṣṭāṅgasamgraha*, compared with the elaborate treatment by Dr̥ḍhabala, testifies to the latter's anteriority. He also points to the quotation from Kapilabala (A.s.Sū. 20.17), identified by P.V. Sharma as Dr̥ḍhabala's father, which is, however, a debatable issue.<sup>606</sup>

The Gulabkunverba team was of the opinion that both the *Aṣṭāṅgasamgraha* and the *Aṣṭāṅgahr̥dayasamhitā* show their indebtedness to Dr̥ḍhabala's version of the *Carakasamhitā*, thus attesting the latter's anteriority.<sup>607</sup>

The *Aṣṭāṅgahr̥dayasamhitā* is almost unanimously considered to have drawn extensively from Dr̥ḍhabala's version of the *Carakasamhitā*, which establishes that Dr̥ḍhabala lived before the age of composition of the *Aṣṭāṅgahr̥daya* (about A.D. 600). The chronological position of the *Aṣṭāṅgasamgraha* with regard to the *Aṣṭāṅgahr̥dayasamhitā* will be discussed in the section devoted to these works.

The terminus post quem cannot be determined with any precision. This date depends on the period in which the *Suśrutasaṃhitā* was revised and its Uttaratantra added, and on the question whether or not Dr̥ḍhabala was acquainted with the revised and expanded text.

Hoernle's view that the *Nāvanītika* of the Bower MS borrowed from the *Carakasamhitā* before its revision and completion by Dr̥ḍhabala is not based on conclusive evidence,<sup>608</sup> and would, anyhow, not be of much avail on account of the uncertain chronological position of that text.

A number of details found in Dr̥ḍhabala's version of the *Carakasamhitā* point to him as an author belonging to the Gupta period. Next to the details already referred to, additional evidence of the same type was collected by P.V. Sharma, in particular from the *Viṣṇudharmottarapurāṇa*.<sup>609</sup>

The data taken together suggests that Dr̥ḍhabala belongs to the period of about A.D. 300–500.<sup>610</sup>

### Patañjali

Patañjali<sup>611</sup> and a work called *Pātañjala*<sup>612</sup> are quoted in some medical works. Patañjali is quoted in Āsubodha Vidyābhūṣaṇa's commentary on the *Paribhāṣā-pradīpa*,<sup>613</sup> Gopālādāsa's *Cikitsāmr̥ta*, Govindasena's *Paribhāṣā-pradīpa*,<sup>614</sup> Raghunādana's *Mugdhābodha*, Śivādāsasena's commentary on the *Cakradatta*,<sup>615</sup> Ṭoḍara's *Āyurvedasaukhya*,<sup>616</sup> and Trivikrama's *Lauhapradīpa*. The *Pātañjala* is quoted by Śivādāsasena,<sup>617</sup> the *Pātañjalatantra* by Kāśīrāma<sup>618</sup> and Trivikrama. Nīścala refers to a *Pātañjalalohaśāstra*.<sup>619</sup> The reference by Nīścala and Śivādāsasena's citations show

that Patañjali was known as a medical authority to the authors of a *Yogaratanākara*<sup>620</sup> and *Yogaratanasamuccaya*.<sup>621</sup> Āśubodha and Nityabodha Senagupta reproduce, in their commentary on the *Rasaratnasamuccaya*, some quotations from Patañjali and the *Pātañjalala* found in Śivadāsa's commentary on the *Cakradatta*.<sup>622</sup>

Satyanārāyaṇaśāstrin's *Padārthavijñāna* also quotes Patañjali and the *pātañjalāh*; some of these quotations are, however, from the *Carakasamhitā*.<sup>623</sup> A quotation from the *Pātañjaladarśana* in Yogendranātha's *Āyurvijñānaratanākara* is from the *Yog-sūtra*.<sup>624</sup>

Govindadāsa's *Bhaiṣajyaratnāvalī* contains a recipe attributed to Patañjali.<sup>625</sup>

The references and quotations in the works of Āśubodha, Govindasena, Kāśīrāma, Niścāla, Śivadāsasena and Trivikrama indicate that Patañjali's work dealt with metallurgy (lohasāstra) and its application to medicine. B. Seal claims that Patañjali gave elaborate directions for many metallurgic and chemical processes, especially the preparation of metallic salts, alloys and amalgams, and the extraction, purification and assaying of metals; he adds that it was probably Patañjali who discovered the use of the mixtures called *viḍa*. B. Seal regards Patañjali's *Lohaśāstra* as a later work than that of Nigārjuna on the same subject, an opinion based on the observation that the former's directions concerning particular processes are more complicated than those of the latter.<sup>626</sup>

Other medical writings ascribed to Patañjali are a *Vātsakandha* and *Siddhāntasārāvalī*, the latter work incorporates a *Paitsakandha*.<sup>627</sup>

The Indian tradition regards Patañjali as the author of a lost tantra on *rasāyana*.<sup>628</sup> Al-Bīrūnī was acquainted with Patañjali's association with *rasāyana*.<sup>629</sup>

Patañjali is the name of at least two famous authors; the one wrote the *Mahābhāṣya*, the other the *Yogasūtra*.

An interesting development made the two fuse into one Patañjali, who, in addition to his expertise in grammar and yoga, was also credited with a thorough knowledge of medicine and allied subjects.

The medical works already referred to are often attributed to this composite Patañjali, as well as a commentary on the *Carakasamhitā*, Vārttikas on that work, or a revised version of it. As a further complication, he is even considered to be identical with Caraka.

The threefold Patañjali is mentioned as a *pratisaṃskartar* of the *Carakasamhitā* in the introductory verses of Cakrapāṇidatta's *Āyurvedadīpikā*.<sup>630</sup> His Vārttikas on the *Vaidikaśāstra* are referred to in Rāmbhadradiṣita's *Pātañjalicarita*.<sup>631</sup> written at the end of the seventeenth or the beginning of the eighteenth century.<sup>632</sup> The tradition that Patañjali wrote Vārttikas on the *Carakasamhitā* is endorsed by G. Hāldār, who asserts that Vijayarakṣita, in his part of the *Madhukośa*, quotes one of these Vārttikas,<sup>633</sup> which, after having existed independently, were incorporated in the text of the *Carakasamhitā* in the first century A.D.<sup>634</sup> The same author is convinced that one of Patañjali's Vārttikas is cited in Nāgesabhaṭṭa's (*Vyākaraṇasiddhānta*) *mañjūṣā*.<sup>635</sup> The claim that Patañjali made additions to the text of the *Carakasamhitā* was also advanced by Sūramcandra.<sup>636</sup> Gananātha Sena<sup>637</sup> regarded him, in agreement with Cakrapāṇidatta, as a *pratisaṃskartar* of the *Carakasamhitā*.

Āśādhavarman, who wrote a commentary on the *Carakasamhitā*, is reported to have objected to views expressed in Patañjali's Vārtikas, which is thought to explain that Āśādhavarman's work is known as *Parihāravārttika*.<sup>638</sup>

The claim that a Patañjali wrote a Vārttika or Vārttikas on the *Carakasamhitā* is found in many publications. P.V. Sharma places this Patañjali, regarded as completely different from the one who wrote the *Mahābhāṣya*, but identical with the Patañjali of the *Siddhāntasārvalī*, in the eighth century.<sup>639</sup> These views are repeated by B. Rama Rao.<sup>640</sup> Some other scholars who accept the former existence of a now lost commentary on the *Carakasamhitā* by Patañjali are G. Mukhopadhyaya,<sup>641</sup> K.R. Srikantamurthy,<sup>642</sup> and G.P. Srivastava.<sup>643</sup> Others<sup>644</sup> are doubtful or reject the hypothesis.

The relatively late tradition that one and the same Patañjali was an expert on yoga, grammar and medicine, dealing in his works with the purification of mind, speech and body, is found in Bhoja's *Nyāyavārttika* (or *Yogasūtravṛtti*)<sup>645</sup> and *Rājamārtanda*,<sup>646</sup> Cakrapāṇidatta's *Āyurvedadīpikā*,<sup>647</sup> Śivarāma's *Kāñcanadarpaṇa* on Subandhu's *Vāsavadattā*,<sup>648</sup> Rāmabhadradīkṣita's *Patañjalicarita*,<sup>649</sup> and Vijñānabhikṣu's *Yogavārttika*.<sup>650</sup> Bhartṛhari's *Vākyapadīya* contains a verse that obviously also refers to Patañjali as a threefold authority, though without mentioning his name.<sup>651</sup> Śaṅkarācārya's *Pātañjalayogasūtrabhāṣyavivaraṇa* is acquainted with Patañjali as a medical expert.<sup>652</sup>

Bhoja depicted himself as a second Patañjali because his works also covered the fields of grammar, yoga and medicine.<sup>653</sup>

The identification of Patañjali and Caraka is implicitly found in a verse of Svāmikumāra's *Carakapañjikā*.<sup>654</sup> It is obviously accepted by Narahari in his *Vāgbhaṭa-maṇḍana*, which contains references to Caraka as Bhogīśvara,<sup>655</sup> Phaṇidhara,<sup>656</sup> Phaṇīśvara,<sup>657</sup> and Sahasraphaṇin.<sup>658</sup> This identification is connected with the tradition that both were incarnations of Śeṣa.<sup>659</sup> J. Filliozat suggested that this tradition forms part of the trend to make the transmissions of the sciences of grammar and medicine parallel to each other.<sup>660</sup> P.V. Sharma put forward that the reason for bringing both authorities together may have been their similar role in the purification of body, speech and mind.<sup>661</sup>

The way in which the traditions concerning Patañjali were elaborated in the course of time is reminiscent of the evolution of Nāgārjuna into a multifaceted legendary personality. It may therefore not be merely accidental that the former became associated with the *Carakasamhitā* and the latter with the *Suśrutasamhitā*. The stories about both show some remarkable parallels; the Nāgas, for example, play an important role in their biographies.<sup>662</sup>

Numerous scholars expressed their opinion on the problem how many authors called Patañjali should be distinguished.<sup>663</sup> Some of those defending the view that one and the same Patañjali wrote the *Mahābhāṣya*, the *Yogasūtra* and one or more works on medicine (metallurgy included) are Gaṇanātha Sena<sup>664</sup>, G. Mukhopadhyaya<sup>665</sup> and G.P. Srivastava.<sup>666</sup> The identity of the authors of *Mahābhāṣya* and *Yogasūtra* was acknowledged by S. Dasgupta,<sup>667</sup> R. Garbe,<sup>668</sup> Liebich,<sup>669</sup> S.K. Ramachandra Rao,<sup>670</sup> and others. The investigations of H. Jacobi<sup>670a</sup> and J.H. Woods made clear

that these two works belong to two different periods,<sup>671</sup> a conclusion accepted in the majority of later publications on the subject.<sup>672</sup>

Three different Patañjalis are recognized by Atrideva,<sup>673</sup> P.V. Sharma<sup>674</sup> and K.R. Srikantamurthy.<sup>675</sup>

Undecided on the issue are P. Deussen,<sup>676</sup> J. Filliozat,<sup>677</sup> Haridattaśarman,<sup>678</sup> Hemarājaśarman,<sup>679</sup> M. Müller,<sup>680</sup> S. Radhakrishnan,<sup>681</sup> and Sūramcandra.<sup>682</sup>

The clear-cut differences between the *Carakasamhitā* on the one hand, the *Mahābhāṣya* and *Yogasūtra* on the other, were worked out and discussed by P.V. Sharma.<sup>683</sup>



## Chapter 14

### Authorities mentioned in the Carakasamhitā

- Abhijit Sū.1.10.
- Agastya Sū.1.9; Ci.1<sup>4</sup>.3; Ci.18.62.
- Agniveśa Sū.1.31 and 39; Ci.12.3, etc.
- Aṅgiras Sū.1.8; Ci.1<sup>3</sup>.4; Ci.1<sup>4</sup>.3.
- Asita Sū.1.8; Ci.1<sup>4</sup>.3; Si.11.4.
- Āśmarathya, Āśmarathya, or Āśvarathya Sū.1.10.
- Āśvalāyana Sū.1.9.
- Ātreya Sū.1.8 and 33, etc.
- Ātreya Punarvasu Sū.26.9, etc.
- Atri Ci.1<sup>4</sup>.3.
- Atriḥ Sū.3.30; Sū.7.66; Sū.21.62; Ci.12.4; Ci.20.3; Ci.30.7; Si.11.3.
- Atriputra Si.1.61.
- Atrisūnu Sū.30.52.
- Atrisuta Ci.22.3; Si.11.10.
- Atryātmaja Ci.12.3.
- Bādarāyaṇa Sū.1.11.
- Baḍiśa Sū.1.11; Sū.26.5 and 8; Śā.6.21; Si.11.7.
- Baḍiśa Dhāmārgava Sū.12.7; Sū.26.8.
- Bhadrakāpya Sū.25.18; Sū.26.3, 8 and 83; Śā.6.21; Śā.8.32.
- Bhadrāśaunaka (see also Śaunaka) Śā.6.21; Si.11.9.
- Bharadvāja (compare Kumāraśiras Bharadvāja) Sū.1.3; Sū.25.20; Śā.3.4, 15, 22; Ci.1<sup>3</sup>.4.
- Bhārgava Sū.1.10.
- Bhela Sū.1.31.
- Bhikṣu Ātreya Sū.1.9; Sū.25.24.
- Bhṛgu Sū.1.8; Ci.1<sup>3</sup>.4; Ci.1<sup>4</sup>.3; Si.11.4.
- Cyavana Sū.1.10; Ci.1<sup>1</sup>.72; Ci.1<sup>2</sup>.20; Ci.1<sup>4</sup>.44.
- Devala Sū.1.10.
- Dhanvantari Śā.6.21.
- Dhaumya Sū.1.12.
- Gālava Sū.1.10.
- Gārgya Sū.1.10.
- Gautama Sū.1.8; Ci.1<sup>4</sup>.3; Si.11.4 and 6.
- Hārīta Sū.1.31.
- Hiranyākṣa Sū.1.12; Sū.25.14.

- Hiraṇyākṣa Kauśika (compare Kuśika) Sū.26.3 and 8.
- Jamadagni Sū.1.8; Ci.1<sup>3</sup>.4.
- Janaka Vaideha Śā.6.21.
- Jatūkarma Sū.1.31.
- Kaikaśeya Sū.1.12.
- Kāṅkāyana (Bāhlika) Sū.1.11; Sū.12.6; Sū.25.22–23; Sū.26.5 and 8; Śā.6.21.
- Kapiñjala (v.l. Kapiṣṭhala) Sū.1.9.
- Kāpya Sū.1.11; Sū.12.12; Si.11.4 and 8.
- Kaśyapa (compare Mārīci Kaśyapa) Sū.1.8; Ci.1<sup>4</sup>.3.
- Kāśyapa Sū.1.12; Ci.1<sup>3</sup>.4.
- Kātyāyana Sū.1.11.
- Kauṇḍinya (v.l. Kauṇḍilya) Sū.1.10.
- Kauśika Sū.25.16; Si.11.4.
- Kṛṣṇātreya Sū.11.65; Ci. 14.152; Ci.15.131 and 185; Ci.16.70–71; Ci.28.157 and 164.
- Kṣārapāṇi Sū.1.31.
- Kumāraśiras Bharadvāja Sū.12.5; Sū.26.4 and 8; Śā.6.21.
- Kuśa Sāṃkṛtyāyana Sū.12.4.
- Kuśika Sū.1.11; Sū.25.16 (identical with Hiraṇyākṣa).
- Lokākṣa (v.l. Laugākṣa) Sū.1.12.
- Maimatāyani Sū.1.13.
- Maitreya Sū.1.13; Sū.10.4, 5, 23.
- Mārīci Sū.1.12.
- Mārīci Sū.12.9–11.
- Mārīci Kaśyapa Śā.6.21.
- Mārkaṇḍeya Sū.1.9.
- Nārada Sū.1.8.
- Nimi Vaideha Sū.26.5 and 8.
- Paiṅgi Sū.1.12.
- Parāśara Sū.1.31.
- Pārikṣi Sū.1.9.
- Pārikṣi Maudgalya Sū.25.8.
- Pulastya Sū.1.8; Ci.1<sup>4</sup>.3; Si.11.4.
- Punarvasu Sū.1.30, etc.
- Pūrṇākṣa Maudgalya Sū.26.3 and 8.
- Śākuneya Sū.1.13.
- Śākunteya Sū.26.3 and 8.
- Sāṃkhya Sū.1.8.
- Sāṃkṛtya Sū.1.11.
- Śāṇḍilya Sū.1.10.
- Śāraloman Sū.1.11; Sū.25.10.
- Śārkārākṣa Sū.1.12.
- Śaunaka (compare Bhadrāśaunaka) Sū.1.13; Si.11.4.
- Vaijavāpi Sū.1.11.

- Vāmadeva Sū.1.9; Ci.1<sup>4</sup>.3.
- Vāmaka Sū.25.5 and 30; Si.11.5.
- Vārki Sū.1.10.
- Vāryovida Sū.12.8–10; Sū.25.12–13; Sū.26.4 and 8.
- Vasiṣṭha Sū.1.8; Ci.1<sup>3</sup>.4; Ci.1<sup>4</sup>.3.
- Viśvāmitra Sū.1.10.

ABHIJIT is a member of the assembly of sages described in the opening chapter of the *Carakasamhitā*. His name is absent from the parallel list in the first chapter of the *Bhāvaprakāśa*.

Abhijit is a son of Punarvasu in the *Harivaṃśa*, whereas the *Viṣṇupurāṇa* calls him a son of Bhava and the father of Punarvasu.<sup>1</sup>

Abhijit is also the name of a nakṣatra.<sup>2</sup>

AGASTYA<sup>3</sup> is mentioned on two occasions in the *Carakasamhitā* (Sū.1.9; Ci.1<sup>4</sup>.3) as a member of a group of sages. A recipe, called agastyaharītakī, is attributed to him in the same treatise (Ci.18.57–62); the *Suśrutasaṃhitā* ascribes to him an agastyāvaleha (U.52.42–46). The first chapter of the *Bhāvaprakāśa* mentions him as Agasti among the sages who assembled on the slopes of the Himālayas.

Agastya, or, as he is sometimes called, Agasti,<sup>4</sup> is well known in Vedic literature, the epics, the Purāṇas, etc.<sup>5</sup> His name is connected with medicine and a number of other sciences. Agastya's spell is alluded to in the *Atharvaveda* as a means of destroying worms.<sup>6</sup> The *Mahābhārata*<sup>7</sup> refers to Agastya, who is said to live in the south, which is referred to as his region,<sup>8</sup> as the one who taught archery (dhanurveda) to Agniśeṣa<sup>9</sup> and as the patron of hunters.<sup>10</sup> A group of Agastyas is known to the *Rgveda*. The *Matsyapurāṇa* lists the Āgastyas as one of the seven main gotras.<sup>11</sup>

The *Brahmavaivartapurāṇa* mentions him as one of the sixteen pupils of Bhāskara to whom the āyurveda was passed on after its creation by Brahṃā; each of them composed a medical treatise; Agastya's work was known as the *Dvaidhanirṇayatantra*.<sup>12</sup> Hemādri refers in his *Lakṣaṇaprakāśa* to Āgastya<sup>13</sup> as one of a long series of sages from whom the āyurveda originates.<sup>14</sup> Agastya is also mentioned as an originator of āyurveda in the *Rasendrasambhava*.

Traditionally, Agastya is a specialist in rasāyana, the art of longevity; a lost tantra on rasāyana, the *Agastyatantra*, is sometimes ascribed to him.<sup>15</sup> Agastya is regarded as long-lived in the *Rāmāyana*. His connection with rasāyana is clearly indicated by a quotation from one of his works in Cakrapāṇidatta's *Āyurvedadīpikā*.<sup>16</sup> In a work of the seventeenth century called *Kriyāyoga*, written in Sanskrit by Ganepūḍi Ādivenkaṭayogin, Agastya is said to be the originator of Kriyāyoga, in which rasāyana plays an important part.<sup>17</sup>

Agasti is referred to as a medical authority in Tibet. He is mentioned in the *Mahāvīyutpatti*.<sup>18</sup>

Agastya is a great figure in the Tamiḷ cultural tradition<sup>19</sup> and in the Indianized states of Southeast Asia.<sup>20</sup> His importance in the South has a parallel in astronomy, where Agastya is the name of the star Canopus.<sup>21</sup>

The introduction of Hinduism into Southern India was his achievement.<sup>22</sup> Numerous Tamiḷ works are attributed to him.<sup>23</sup> He is regarded as the founder of the Tamiḷ grammatical tradition,<sup>24</sup> the one who handed down the *Tiruvilaiyāṭai purāṇam* to other sages,<sup>25</sup> and, being the foremost among the eighteen Citters of Siddha medicine, as the author of numerous medical treatises.<sup>26</sup>

Other sciences with which the name of Agastya is associated are: veterinary medicine,<sup>27</sup> *rasaśāstra*,<sup>28</sup> *dharmasāstra*, the science of precious stones (*ratnaśāstra*), architecture,<sup>29</sup> carpentry (*takṣasāstra*), dancing (*nāṭyaśāstra*), archery (*dhanurveda*), astrology,<sup>30</sup> divination, *karmavipāka*, etc.<sup>31</sup>

Several works are ascribed to Agastya or associated with his name.<sup>32</sup>

Medical works in Sanskrit ascribed to Agastya are: (1) *Agastisamhitā* or *Agastyasamhitā*,<sup>33</sup> (2) *Agastya vaidya*,<sup>34</sup> (3) *Agastyanighaṇṭu*,<sup>35</sup> (4) *Śābdasamgrahaniḥaṇṭu*.<sup>36</sup>

Somaya, a Telugu author of the seventeenth century, wrote a medical treatise called *Bhiṣagvarāṇjana* that contains the medical science as taught to Agastya by Dhanvantari.<sup>37</sup> The anonymous *Rudantīkalpa* consists of a conversation between Vasiṣṭha and Agastya. The Telugu version of a *Rasapradīpikā*, ascribed to Bharadvāja in its Sanskrit version, is presented as being taught to Ātreya by Agastya.

Treatises on the lapidary art attributed to Agastya<sup>38</sup> are: *Agastimata*,<sup>39</sup> *Agastīyā-Ratnaparīkṣā*<sup>40</sup> or *Maṇilakṣaṇa*,<sup>41</sup> *Ratnaparīkṣāsamuccaya*,<sup>42</sup> and *Ratnaśāstra*.<sup>43</sup> He is mentioned as an authority on precious stones in the *Ratnadīpikā* and *Rayanaparikkhā*.

Agastya is quoted or referred to in Anantakumāra's *Yogaratanasamuccaya*,<sup>44</sup> the *Bhelasamhitā*,<sup>45</sup> Bindu's *Rasapaddhati*,<sup>46</sup> the Bower MS,<sup>47</sup> Cakrapāṇidatta's *Āyurvedadīpikā*,<sup>48</sup> and *Cikitsāsamgraha*,<sup>49</sup> Candrāta's *Yogaratanasamuccaya*, Dattarāma's *Brhadrasarajasundara*,<sup>50</sup> the *Dhanvantari*,<sup>51</sup> Gaṅgādhara's commentary on the *Carakasamhitā*,<sup>52</sup> Gopālakṛṣṇa's *Rasendrasārasamgraha*,<sup>53</sup> Govindadāsa's *Bhaiṣajyaratnāvalī*,<sup>54</sup> Guḷrāṣarmamiśra's *Siddhaprayogalatikā*,<sup>55</sup> Hariprapanna's *Rasayoga-sāgara*,<sup>56</sup> Hārīśaraṇānanda's *Kūpīpakvarasanirmānavijñāna*,<sup>57</sup> the *Hārītasamhitā*,<sup>58</sup> the *Mādhavacikitsā*,<sup>59</sup> Māṇikyacandra's *Rasāvatāra*,<sup>60</sup> the *Nāḍīśāstrasamgraha*,<sup>61</sup> Nārāyaṇabhūpati's *Nārāyaṇavilāsa*,<sup>62</sup> Nityanātha's *Rasaratnākara*,<sup>63</sup> Pālakāpya's *Hastyaśyurveda*,<sup>64</sup> Raghunāthaprasāda's *Vaidyakalpadruma*,<sup>65</sup> an anonymous *Rudantīkalpa*,<sup>66</sup> Sadānanda's *Rasatarāṅgiṇī*,<sup>67</sup> the *Sahasrayoga*,<sup>68</sup> the *Samksiptasāra*,<sup>69</sup> the *Śārngadharasamhitā*,<sup>70</sup> Soḍhala's *Gadanigraha*,<sup>71</sup> Śrīdāsa paṇḍita's *Hṛdayabodhikā*,<sup>72</sup> Śrīkaṇṭhadatta's commentary on the *Siddhayoga*,<sup>73</sup> Ṭoḍara's *Āyurvedasaukhyā*,<sup>74</sup> Trimalla's *Yogatarāṅgiṇī*,<sup>75</sup> and *Śataśloki*,<sup>76</sup> Vāgbhata's *Aṣṭāṅgahrdayasamhitā*,<sup>77</sup> *Aṣṭāṅgasamgraha*,<sup>78</sup> and *Aṣṭāṅgahrdayavaiḍūryakabhāṣya*,<sup>79</sup> the *Vaidyacintāmaṇi*,<sup>80</sup> Vaṅgasena's *Cikitsāsārasamgraha*,<sup>81</sup> Vṇda's *Siddhayoga*,<sup>82</sup> and the *Yogaratanākara*.<sup>83</sup> Two formulae of an *agastisūtarāja*, found in a number of treatises, are quoted in the *Bhāratabhaiṣajyaratnākara*<sup>84</sup> and the *Rasayogasāgara*.<sup>85</sup> The latter compilation also contains the recipe of an *agastivaṭi*.<sup>86</sup>

ĀṆGIRAS<sup>87</sup> is one of the sages who took part in the gathering on the slopes of the Himālayas described in the first chapter of the *Carakasamhitā* and the *Bhāvaprakāśa*. The *Carakasamhitā* also mentions him as one of the sages who, by means of a particular

rasāyana, became free from disease and the afflictions of old age (Ci.1<sup>3</sup>.4–6).

A MS of the *Ātreyaśamhitā* mentions a medical treatise called *Āṅgirā*.<sup>88</sup>

Āṅgiras is known as a medical authority, called *Hod-yañ*, in the Tibetan tradition.<sup>89</sup> Pālakāpya's *Hastyāyurveda* refers to one of his descendants, an *Āṅgirasa*. *Āṅgirasa* is one of a series of medical experts in the *Milindapañha* (4.7.20).<sup>89a</sup> The *Atharvaveda* knows the *Āṅgirasah* as possessing knowledge about medicinal plants (8.7; 19.39) and calls the *jaṅgiḍa* plant *Āṅgiras* (19.34).<sup>90</sup>

Āṅgiras, one of the mythical seven sages (*saptarṣi*),<sup>91</sup> or one of the group called the *Prajāpatis*.<sup>92</sup> is also an authority on *dharmaśāstra*<sup>93</sup> and one of the eighteen founders of *jyotiḥśāstra*.<sup>94</sup>

ASITA<sup>95</sup> is mentioned thrice as a member of a group of sages in the *Carakasamhitā*, but without his own opinion on a particular subject being referred to. The *Bhāvaprakāśa* knows about his presence among the sages who assembled on the slopes of the *Himālayas* (I.1). Hemādri's *Lakṣanaprakāśa* presents him as one of the originators of *āyurveda*. His name occurs in the *Atharvaveda* (6.137.1)<sup>96</sup> in connection with a herb called *mtatnī*, used in promoting hair growth; this herb is said to have been brought from the house of Asita.<sup>97</sup>

Asita is the son of Kaśyapa and the father of Devala in the *Vāyupurāṇa*, the father of Devala and Śaṅḍilya in the *Kūrmapurāṇa*, but the son of Devala in the *Jaiminīyabrahmaṇa*.<sup>97a</sup>

An Asita is known as an authority on subjects connected with *jyotiṣa*.<sup>98</sup>

ĀŚMARATHYA or ĀŚMARATHYA<sup>99</sup> takes part in the assembly of sages described in the opening chapter of the *Carakasamhitā*.<sup>100</sup> His name is absent from the parallel list in the first chapter of the *Bhāvaprakāśa*.

Āśmarathya/Āśmarathya is the name of a teacher in the *Āśvalāyana*-, *Bhāradvāja*-, and *Śāṅkhāyanaśrautasūtra*, the *Bhāradvājagrhyasūtra*,<sup>101</sup> as well as in Bādarāyaṇa's *Vedāntasūtras*<sup>101a</sup> and Saṅkara's *Bhāṣya* on the *Vedāntasūtras*.<sup>101b</sup>

ĀŚVALĀYANA<sup>102</sup> is well known in Vedic literature<sup>103</sup> as the author of the *Āśvalāyanaśrauta*- and *-grhyasūtra*, and as the founder of a *śākhā* of the *Rgveda*. He was a pupil of Śaunaka. Later Indian literature is also acquainted with *Āśvalāyana*.<sup>104</sup> He is a member of the group of sages who assembled on the slopes of the *Himālayas* in the *Carakasamhitā* and *Bhāvaprakāśa* (I.1).<sup>105</sup>

ĀTREYA.<sup>106</sup>

ATRI.<sup>107</sup>

BĀDARĀYAṆA is the name of several teachers and authors.<sup>108</sup> He is present among the sages on the slopes of the *Himālayas* in the *Carakasamhitā* and *Bhāvaprakāśa* (I.1). Bādarāyaṇa is another name for Kṛṣṇadvaipāyana Vyāsa, the compiler of the *Mahābhārata* and arranger of the *Purāṇas*, who, as the son of Parāśara, is also called *Pārāśarya*.

This Vyāsa is identified with Vedavyāsa, the arranger of the Vedas, and the Vyāsa who wrote a commentary on the *Yogasūtra*. The *Vedāntasūtra* is ascribed to a Bādarāyaṇa. A Vyāsa, who is quoted in Aruṇadatta's commentary on the *Aṣṭāṅgaḥṛdayasamhitā* (ad Sū.14.20) as a medical authority, is sometimes identified with Bādarāyaṇa.<sup>109</sup> Bādarāyaṇa was also an authority on jyotiṣa.<sup>110</sup>

BADĪŚA,<sup>111</sup> surnamed Dhāmārgava after the plant<sup>112</sup> from which the instrument called badīśa<sup>113</sup> is made,<sup>114</sup> makes his appearance in the *Carakasamhitā* a number of times. Badīśa is a member of the group of sages mentioned in the first chapter of Caraka, but he is absent from the group in the *Bhāvaprakāśa* (I.1). He takes part in a discussion on the properties and actions of vāta (Ca.Sū.12), explaining which factors disturb or restore its balance. On another occasion (Ca.Sū.26), he puts forward that eight tastes should be distinguished, adding the caustic (kṣāra) and indistinct (avyakta) tastes to the usual six.<sup>115</sup> In the chapter dealing with the part or parts of the body which arise first in an embryo (Ca.Śā.6) he maintains that the arms and legs appear first.<sup>116</sup> In a chapter of the *Siddhisthāna* (Ca.Si.11), concerned with the question which fruits or seeds are the best for use in a non-oleaginous enema (āsthāpana), Badīśa, contradicting Gautama's view that dhāmārgava seeds are the best, recommends those of kuṭaja.<sup>117</sup>

Badīśa is also mentioned in the *Bhelasamhitā*, where he participates in a discussion on the development of the embryo (Śā.4.30) that resembles the one found in the *Carakasamhitā* (Śā.6); as in the *Carakasamhitā*, he puts forward the view that the arms and legs are the first parts to develop.

BHADRAKĀPYA<sup>118</sup> does not figure among the sages enumerated at the beginning of the *Carakasamhitā*, nor among the group mentioned in the *Bhāvaprakāśa* (I.1). He takes part in the discussion on the origin of the individual (Ca.Sū.25: yajjāhpuruṣīya), where he, contradicting Kauśika, emits as his view that the individual human being and his diseases are the product of karman. In the chapter on the tastes (Ca.Sū.26: ātreyaḥbhadrakāpyīya) he is a representative of the view that there is only one taste as the object of the gustatory sense and that this is the taste of water;<sup>119</sup> he also argues, contrary to Ātreya's view, that all types of fish, with the exception of cilicima, can be eaten in combination with milk. In the discussion on the part of the body that arises first during the development in the womb (Ca.Śā.6), Bhadrakāpya asserts that this is the navel.<sup>120</sup> Finally, he is opposed to Ātreya's opinion on the regimen of a woman during the eighth month of her pregnancy (Ca.Śā.8.32).

BHADRAŚAUNAKA, also simply called Śaunaka,<sup>121</sup> makes his appearance in the *Carakasamhitā* several times. Śaunaka is a member of the assembly of sages in the opening chapter. In the chapter dealing with the part or parts of the body that develop first in an embryo (Śā.6), Bhadrāśaunaka represents the view that these parts are the colon and rectum (pakvāśayaguda).<sup>122</sup> In the chapter containing a discussion on the choice of the best drug for use in a non-oleaginous enema (āsthāpana), Śaunaka shows a preference for the seeds of jīmūta (Ca.Si.11.5);<sup>123</sup> the same group of verses

of the chapter mentions that Bhadrāśaunaka rejected Kāpya's choice of *kṛtavedhana*<sup>124</sup> (Ca.Si.11.9). Some scholars<sup>125</sup> assert that Śaunaka also gives his opinion in the chapter on the origin of the individual (Ca.Sū.25). These authors are convinced that the text of Ca.Sū.25.16–17, where Kauśika replies to (Hiranyākṣa) Kuśika, is corrupt, because Hiranyākṣa's patronymic is not Kuśika, but Kauśika; therefore they propose to read Śaunaka instead of Kauśika.<sup>126</sup> This implies that Śaunaka disagrees with Hiranyākṣa in giving as his conviction that the parents are at the origin of an individual and his diseases.

The *Bhelasāṃhitā* (Sū.9.7cd–9) relates that (Bhadra)śaunaka<sup>127</sup> contradicts Ātreya's opinion on the four pillars of treatment, by claiming that successful treatment is not guaranteed in the presence of the four. The Śārīrasthāna mentions Śaunaka's view that the head of the foetus is turned upwards in the womb (Śā.4.32);<sup>128</sup> the same section refers to Śaunaka contradicting Ātreya on the means to influence the characteristics of an unborn child (Śā.8.3).

Vāgbhaṭa (A.h.Ka.6.15d–16 = A.s.Ka.8.20d–21) quotes a technical rule (*paribhāṣā*) of Śaunaka on the preparation of a *sneha*.

Apart from the treatises already mentioned, (Bhadra)śaunaka is quoted or referred to in Ananta's *Yogarātnasamuccaya*,<sup>129</sup> Aruṇadatta's commentary on the *Aṣṭāṅgahṛdaya*,<sup>130</sup> the *Āyurvedābhisāra*,<sup>131</sup> *Bhāvaprakāśa*,<sup>132</sup> *Bhesajakalpa*<sup>133</sup> and Veṅkaṭeśa's commentary on that work, the *Bhesajjamañjūsāsanaya*,<sup>134</sup> Cakrapāṇidatta's *Āyurvedadīpikā*,<sup>135</sup> Candrāta's *Yogarātnasamuccaya*,<sup>136</sup> by Ḍaḥaṇa,<sup>137</sup> Hemādri,<sup>138</sup> Indu,<sup>139</sup> Jejjāta,<sup>140</sup> Nīśalākara,<sup>141</sup> in Rūpanayana's commentary on the *Yogaśataka*,<sup>142</sup> Śivādāsena's commentary on the *Cakradatta*,<sup>143</sup> Śrīkaṇṭhadatta's commentary on the *Siddhayoga*,<sup>144</sup> Ṭoḍara's *Āyurvedasaukhya*,<sup>145</sup> Trimalla's *Brhadhyogatarāṅgiṇī*,<sup>146</sup> Vāgbhaṭa's *Aṣṭāṅgahṛdayavaiśiṣṭyabhāṣya*,<sup>147</sup> and the *Vīrasimhāvaloka*.<sup>148</sup> An authority called *Vṛddhaśaunaka*<sup>149</sup> is quoted in Trimalla's *Yogatarāṅgiṇī*<sup>150</sup> and Ṭoḍara's *Āyurvedasaukhya*.<sup>151</sup>

The quotations from and references to Śaunaka and Bhadrāśaunaka indicate that both are the same person.<sup>152</sup> Some scholars<sup>153</sup> claim that the Bhadrāśaunaka of Ca. Śā.6 and the Śaunaka of Su.Śā.3.32 are different persons, basing themselves on their incompatible views on the part of the body which develops first in an embryo.

The quotations from (Bhadra)śaunaka prove that he was the author of a medical tantra in verse.<sup>154</sup> Although it is often said that this *Śaunakatantra* was a specialized treatise on śālākya,<sup>155</sup> there is only one indication in support of this view,<sup>156</sup> whereas, on the other hand, several quotations point to a more comprehensive medical work.<sup>157</sup>

A book on poisons ascribed to an Indian author, the *Kitāb al-sumūm* by Šānāq, preserved in an Arabic translation,<sup>158</sup> is by some regarded as a work of Śaunaka.<sup>159</sup> Others place it as the *Śaunakasāṃhitā* on the list of treatises specialized in toxicology (*agadatantra*).<sup>160</sup>

Sanaka is quoted by Āḍhamalla.<sup>161</sup> The *Rasarātnadīpikā* by Śrīvāṇeśvara Bhaṭṭācārya contains a number of prescriptions attributed to Sanaka.

Śaunaka is also connected with expiatory rites (*śānti*) and said to be the author of a *grahajānana*,<sup>162</sup> *kṛṣṇacaturdaśtjanana*,<sup>163</sup> and *yamalajananaśānti*.<sup>164</sup>

The *Matsyapurāṇa* refers to Śaunaka as an authority on *vāstuśāstra*.<sup>165</sup>

The Śaunakas of the Vedic tradition, the Purāṇas, etc., are without any doubt different from the medical authority of this name.<sup>166</sup>

BHARADVĀJA<sup>167</sup> is the member of the assembly of sages, described in the opening chapter of the *Carakasamhitā*, who is their depute to the abode of Indra in order to enlist his aid in removing the diseases which had befallen mankind. Bharadvāja's request is granted by Indra, who transmits to him the medical science,<sup>168</sup> subsequently passed on to the other sages, among whom Ātreya is the most prominent one. He is also one of the sages who, through the use of the brāhmarasāyana, became free from disease and the afflictions of old age (Ca.Ci.1<sup>3</sup>.4–6). Bharadvāja is, however, strikingly absent when a group of sages approaches Indra for instruction on a second occasion (Ca.Ci.1<sup>4</sup>.3).<sup>169</sup> In the discussion on the origin of the individual (Ca.Sū.25), Bharadvāja rejects Bhadrakāpya's view and advances that *svabhāva* (nature, i.e., the laws of nature) has to be regarded as the origin of the individual and his diseases.<sup>170</sup> Bharadvāja contradicts Ātreya in the chapter on the descent of the embryo into the womb (*garbhāvākraṇti*; Ca.Sā.3), disagreeing with the latter's statement that the embryo arises from a combination of elements, which consists of the parents, the ātman, sātmya (suitability) and nourishment (*rasa*), with the psyche (*sattva*) as an associated element. Although being strongly opposed to Ātreya's view, Bharadvāja does not bring forward an alternative thesis and restricts himself to an enumeration of proofs to the contrary.

In the *Bhelasamhitā* he represents the view, ascribed to Kumārasīrasa Bharadvāja in the *Carakasamhitā*, that the head is the first part of the body to appear during the development of the embryo in the womb (Śā.4.30); he also expounds (Śā.4.32) that the head of the foetus is turned downwards in the womb. In another chapter of the same treatise (Śā.6) he tries, as in the *Carakasamhitā*, to disprove Ātreya's thesis on the elements leading to the formation of an embryo; he also rejects Ātreya's statement that *vāyu* and *agni* leave the body after death.

The *Aṣṭāṅgasamgraha* (Sū.1.6) mentions Bharadvāja as one of the sages who received the *āyurveda* from Indra, but he is not referred to in the *Aṣṭāṅgahṛdayasamhitā* (Sū.1), where Indra transmits the *āyurveda* to Ātreya directly. The *Aṣṭāṅgasamgraha* also mentions Bharadvāja as one of the sages and divinities who have to be honoured in the preparation of an eye-salve, called *sarvārthasiddhāgada* (Sū.8.59).

The assembly of sages on the slopes of the Himālayas is, with the *Carakasamhitā* as its model, also described in Bhāvamīśra's *Bhāvaprakāśa* (I.1). There it is said that Bharadvāja was the first one to arrive. The story of his being deputed by the sages is the same as in the *Carakasamhitā*, but it is preceded by a parallel version in which Ātreya, on his own account, goes to Indra's heaven and receives the *āyurveda*.

A MS of the *Ātreyasamhitā* mentions a medical treatise called *Bhāradvājī*.<sup>171</sup>

Bharadvāja's association with the science of medicine is moreover attested by a passage in Hemādri's *Lakṣaṇaprakāśa*, where he is called an *āyurvedasya kartar*.<sup>172</sup>

The *Kalyāṇakāraka* mentions a Bharadvāja as being opposed to a non-vegetarian diet. Bharadvāja is a medical authority in a *Kāśyapasamhitā*.<sup>173</sup> Bharadvāja's name is also found in the context of veterinary medicine. Pālakāpya's *Hastyaśyurveda* (I.1)



relates<sup>174</sup> that he was one of the sages who gathered at Romapāda's court in order to be instructed in the science of *hastyāyurveda*. The same treatise reports (IV.4; p. 581) that Bharadvāja distinguished two types of fatty substances, those of vegetable (*sthāvara*) and animal (*jaṅgama*) origin.

Bharadvāja is, apart from medicine, also connected with *ratnaśāstra*,<sup>175</sup> *dharmaśāstra*,<sup>176</sup> *nītiśāstra*,<sup>177</sup> *vyōṭṣa*,<sup>178</sup> and *dhanurvedyā*.<sup>179</sup>

Bharadvāja is a legendary figure, often mentioned in Vedic literature, the epics, and the Purāṇas.<sup>180</sup> He is sometimes associated with Ātreya.<sup>181</sup> The *Harivamśa* (I.29) states that Bharadvāja taught āyurveda to Dhanvantari,<sup>182</sup> although the sage's name does not appear in the story about the descent of āyurveda in the *Suśrutasaṃhitā*. Bharadvāja is reputed as a very long-lived sage, not only in the *Carakasamhitā* (Sū.1.26), but already in Vedic literature.<sup>184</sup> The *Taittirīyabrahmaṇya* and the *Mahābhārata* describe him as having lived through three lives as the purohita of three successive kings of Kāśī, namely Dhanvantari, Sudāsa and Pratardana.<sup>185</sup>

The numerous references to Bharadvāja in very diverse contexts have led a number of scholars to assume that more than one Bharadvāja has to be distinguished.<sup>186</sup> The singular fact that in the *Carakasamhitā* a Bharadvāja transmits the āyurveda to Ātreya, while a sage of the same name disagrees with Ātreya on important doctrinal matters, is at the origin of the view that the two are obviously not identical.<sup>187</sup> The Kumārasīras Bharadvāja, who also appears in the *Carakasamhitā*, is usually regarded as distinct from Bharadvāja.<sup>188</sup> The Kṛṣṇa Bharadvāja of the *Kāśyapasaṃhitā* (Sū.27.3), who holds the opinion that diseases are fourfold (*āgantū, vātaja, pittaja, kaphaja*), is certainly a separate authority.

Bharadvāja's fame as a medical authority spread to Tibet. He is mentioned in the *Mahāvīyutpatti* as Bha-ra rgyal-mchan.<sup>189</sup> The Tibetan medical historiographer Jayapaṇḍita Blo-bzan-ḥphrin-las (second half seventeenth century) writes in his *Thob-yig* that an Indian physician, called Bharadvāja, was invited to the court of the famous king Sroṅ-bcān-sgam-po (first half seventh century).<sup>190</sup> The same story is found in other Tibetan works.<sup>191</sup> This Bharadvāja is credited with two medical treatises;<sup>192</sup> he is also said to have translated, in collaboration with the Nepalese physician Balaha, Indian medical treatises into Tibetan.<sup>193</sup>

Bharadvāja was, according to the *Bhāvaprakāśa* (I.1.55–56), the author of a medical tantra. Some ascribe a now lost *saṃhitā* on *kāyacikitsā* to him.<sup>194</sup>

Works attributed to Bharadvāja<sup>195</sup> are: (1) *Aṃśubodhinī*, probably a work on *rasaśāstra*;<sup>196</sup> (2) *Bharadvāja*, a medical treatise of which only the portion dealing with *meha* has been preserved;<sup>197</sup> (3) *Bheṣajakalpa*;<sup>198</sup> (4) *Bharadvājakalpa*;<sup>199</sup> (5) *Rasapradīpikā*;<sup>200</sup> (6) *Vimānaśāstra* or *Vaimānikaprakaraṇa*.<sup>201</sup>

Formulae ascribed to Bharadvāja or Bhāradvāja are: (*bṛhat*)*phalaghṛta*,<sup>202</sup> *copacī-nīpāka*,<sup>203</sup> *citrakāvāleha*,<sup>204</sup> *mañjiṣṭhādīpāka*,<sup>205</sup> and *saubhāgyasaṃhī*.<sup>206</sup>

Bharadvāja/Bhāradvāja is also quoted or referred to in *Anantakumāra's Yogaratnasamuccaya*,<sup>207</sup> the *Ārogyāmṛtabindu*, the *Āyurvedāgama*, the *Bheṣajjamañjūsāsanaya*,<sup>208</sup> Bhoja's *Yuktikalpataru*,<sup>209</sup> the *Brhannighaṇṭuratanākara*,<sup>210</sup> Cakrapāṇidatta's *Āyurvedadīpikā*,<sup>211</sup> Candranandana's *Padārthacandrikā*,<sup>212</sup> Candraṭa's *Yogaratnasamuccaya*, Gayadāsa's commentary on the Śārīrasthāna of the *Suśrutasaṃhitā*,

the *Haṃsarājanidāna*,<sup>213</sup> Indu's commentaries on the *Aṣṭāṅgharḍaya*<sup>214</sup> and *Aṣṭāṅgasamgraha*,<sup>215</sup> the *Jvaracikitsita*, the *Jvarasamuccaya*, the *Kairālī* commentary on the Uttaraśthāna of the *Aṣṭāṅgharḍayasamhitā*,<sup>216</sup> Narasiṅha's commentary on the *Rasavaīśeṣikasūtra*,<sup>217</sup> the *Nādisāsthasamgraha*,<sup>218</sup> Parameśvara's *Vākyapradīpikā*,<sup>219</sup> Soḍhala's *Gadanigraha*,<sup>220</sup> Śrīdāsapaṇḍita's commentary on the *Aṣṭāṅgharḍayasamhitā*,<sup>221</sup> Svāmikumāra's commentary on the *Carakasamhitā*,<sup>222</sup> the *Tāmbūlakalpaśamgraha*, the *Tāmbūlamāñjarī*, Ṭoḍara's *Āyurvedasaukhya*,<sup>223</sup> and Vaṅgasena's *Cikitsāsārasamgraha*.<sup>224</sup>

A verse from a work by Bharadvāja, quoted by Śivadāsasena,<sup>225</sup> may be from the *Bharadvājadharmasūtra*.<sup>226</sup>

BHĀRGAVA<sup>227</sup> is mentioned as one of the sages who are assembled on the slopes of the Himalāya in the opening chapter of the *Carakasamhitā* and in Bhāvamīśra's *Bhāvaprakāśa*. A MS of the *Ātreyasamhitā* mentions a medical treatise called *Bhārgavī*.<sup>228</sup>

The first chapter of Pālakāpya's *Hastyāyurveda* informs us of the presence of Bhārgava among the sages at Romapāda's court who want to be instructed in *hastyāyurveda*.

Many Bhārgava's, i.e., descendants of Bhṛgu, are known,<sup>229</sup> for example Cyavana, Jamadagni and Vṛddhajīvaka. The *Kāśyapasamhitā*, in the form of a dialogue between Kāśyapa and Vṛddhajīvaka, is therefore also called *Bhārgavīyasamhitā*. The *Carakasamhitā* once refers to Cyavana by calling him Bhārgava.<sup>230</sup> The *Kāśyapasamhitā* relates that another Bhārgava, called Pramati, held the view that all diseases, being afflictive, are one (Sū.27.3).<sup>231</sup> The *Kalyāṇakāraka* mentions Bhārgava among the authorities who were opposed to a non-vegetarian diet.

A medical authority called Bhārgava is quoted in Anantakumāra's *Yogaratanasamuccaya*.<sup>232</sup> Recipes, attributed to Bhārgava, are found in Anantakumāra's *Yogaratanasamuccaya*,<sup>233</sup> the *Bhaiṣajyaratnāvalī*,<sup>234</sup> *Rasaratnadīpikā*,<sup>235</sup> and *Rasaratnākara*.<sup>236</sup>

Bhārgava is also known as an authority on *gyotiṣa*<sup>237</sup> and *nītiśāstra*.<sup>238</sup> Several Bhārgavas are masters of *dhanurveda* in the *Mahābhārata*.<sup>239</sup>

BHĪKṢU ĀTREYA<sup>240</sup> is a person who appears in the *Carakasamhitā* on two occasions. He is a member of the group of sages in the first chapter of the treatise and he takes part in the discussion on the origin of the individual (Sū.25). In the latter chapter he rejects Kārikāyana's view and is an advocate of the thesis that the individual and his diseases are, as well as the whole universe, governed by time (Sū.25.24). Opinions differ as to the identity of this bhikṣu Ātreya, especially with regard to the question whether or not he is the same as the Ātreya of Buddhist literature who taught medicine to the famous physician Jīvaka in Takṣaśilā.<sup>241</sup> The *Carakasamhitā* only points to a religious mendicant (bhikṣu), whose views do not impress as inspired by Buddhism. The *Bhāvaprakāśa* (I.1) fails to mention bhikṣu Ātreya as one of the sages assembled on the slopes of the Himālayas.

BHṚGU<sup>242</sup> is one of the sages who, on two occasions (Ca.Sū.1.8 and Ci.1.4.3), turn to Indra for help in relieving the suffering of mankind, caused by diseases.<sup>243</sup> He is one of

the sages who, through the use of a particular rasāyana, became free from disease and the afflictions of old age (Ca.Ci.1<sup>3</sup>.4–6). Bhṛgu is also mentioned among the group of sages who approach Ātreya in order to hear from him which fruits are the best for use in a non-oleaginous enema, but he has no personal opinion on this subject (Ca.Si.11.3–14). The *Kāśyapaśaṃhitā* relates that Indra handed the āyurveda down to the four sages Kāśyapa, Vasiṣṭha, Atri and Bhṛgu.<sup>244</sup> The *Bhāvaprakāśa* (I.1) mentions Bhṛgu among the sages who received the āyurveda from Indra, with Bharadvāja acting as their mediator.

Hemādri's *Lakṣaṇaprakāśa* calls Bhṛgu an āyurvedasya kartar.<sup>245</sup> The *Bṛhannighaṇṭuratanākara* regards him as the author of a medical saṃhitā.<sup>246</sup> Some Indian scholars refer to him as the author of a lost rasāyanatantra.<sup>247</sup> Bhṛgu is mentioned as a medical authority, called Nan-spoñ, in a Sanskrit-Tibetan lexicon, called *Mahāvvyutpatti*, prepared by order of the King Khri-ldo sroñ-bcan (816–838).<sup>248</sup>

Bhṛgu is one of the Prajāpatīs<sup>249</sup> and also a well-known sage in many branches of Sanskrit literature.<sup>250</sup> He is associated with various sciences: dharmasāstra, nītiśāstra, vāstuśāstra, śilpaśāstra, jyotiṣa, dhanurveda and āyurveda.<sup>251</sup> He is in Pālākāpya's *Hastyāyurveda* one of the sages assembled at Romapāda's court who want to be instructed in hastāyurveda; Nīlakaṇṭha's *Mātāṅgalīlā* also mentions him in relation with the science of elephants.

A *Karmavipākā*, in the form of a conversation of Bhṛgu, Bharata and Śakuntalā, also called *Bhārgava-* or *Bhārgaviyakarmavipākā*, is ascribed to Bharata, Bhṛgu or Bhārgava in the MSS; it contains material on dharmasāstra, astrology and medicine.<sup>252</sup> Śātātapa's *Karmavipākā* is a dialogue between Vasiṣṭha and Bhṛgu.<sup>253</sup>

Bhṛgu is referred to by Ādhamalla,<sup>254</sup> Harṣakīrti,<sup>255</sup> Hemādri,<sup>256</sup> Tiṣaṭa,<sup>257</sup> Ṭoḍara,<sup>258</sup> and Vācaspati.<sup>259</sup>

Formulae attributed to Bhṛgu are: ānandarasa,<sup>260</sup> bhṛghuharītakī,<sup>261</sup> kaṇṭakārīpāka,<sup>262</sup> pramadānandarasa,<sup>263</sup> and vyāghrīharītakī.<sup>264</sup>

CYAVANA is a member of the assembly of sages in the opening chapter of the *Carakasamhitā*. His name is found again at the end of the formula of cyavanaprāśa (Ci.1<sup>1</sup>.62–74), a rasāyana preparation that is very famous since it restored youth to Cyavana when he had grown very old. This story about Cyavana is alluded to again in the second and fourth parts of the same chapter (Ci.1<sup>2</sup>.3 and 20; 1<sup>4</sup>.44). The first chapter of the *Bhāvaprakāśa* makes mention of Cyavana among the assembled sages on the slopes of the Himālayas. The *Aṣṭāṅgasamgraha* (Sū.8.59) refers to Cyavana as one of the sages and deities who have to be honoured anterior to the preparation of an eye-salve, called sarvārthasiddha. The same text (U.16.88) mentions him as one of the sages and deities to be honoured for the protection of one's eyesight. The *Bṛhannighaṇṭuratanākara*<sup>265</sup> regards him as the author of a medical saṃhitā.<sup>266</sup> The *Brahmavaivartapurāṇa* (Brahmakhaṇḍa 16.9–22) tells that Cyavana wrote a medical treatise, called *Jivādāna*.<sup>267</sup> According to the first chapter of Pālākāpya's *Hastyāyurveda*, Cyavana was one of the sages at Romapāda's court who wanted instruction in the medicine of elephants.

Cyavana is a well-known sage in Sanskrit literature.<sup>268</sup> The story how the Aśvins

made him, when he was very old, youthful again, is referred to in some hymns of the *Ṛgveda*<sup>269</sup> and told in various texts, for example the *Jaiminīyabrāhmaṇa*, *Pāṇicaviṃśabrāhmaṇa*, *Śatapathabrāhmaṇa*, *Mahābhārata*,<sup>270</sup> and *Aṣṭāṅgasamgraha*.<sup>271</sup> Cyavana was a son of Bhṛgu; hence he is called Bhārgava in the *Carakasamhitā*<sup>272</sup> and *Aṣṭāṅgasamgraha*.<sup>273</sup>

The famous formula of cyavanaprāśa, an electuary (avaleha), is found in numerous medical treatises.<sup>274</sup> The Bower MS describes an amṛtataila that bestowed long life on Cyavana and Mārkaṇḍeya.<sup>275</sup> The *Rasaratnasamuccaya* contains a recipe given by Śamkara to Cyavana,<sup>276</sup> the *Yogaratanākara* a formula given to Cyavana by Prathamātri.<sup>277</sup> Cyavana is also referred to in dharmaśāstra texts<sup>278</sup> as one of the eighteen founders of astrology,<sup>279</sup> and as an authority on jyotiṣa.<sup>280</sup> Dhanurveda, the science of weaponry, is the peculiar reserve of the descendants of Cyavana in the *Mahābhārata*.<sup>281</sup>

DEVALA<sup>282</sup> is a member of the group of sages, assembled on the slopes of the Himālaya, who are mentioned in the opening chapter of the *Carakasamhitā*, as well as in the first chapter of the *Bhāvaprakāśa*.

Devala is mentioned as an originator of āyurveda in Hemādri's *Lakṣaṇaprakāśa*.<sup>283</sup>

A Devala is a Vedic ṛṣi to whom some hymns are ascribed. Another Devala was cursed by Rambhā, whose love for him he did not reciprocate; as a result of this curse, he was born as Aṣṭāvakra, with a crooked body, in a later life.<sup>283a</sup> This Devala was the son of Asita, a sage also present at the meeting of sages described in the *Carakasamhitā*. Other sources call him the father of Asita.<sup>283b</sup>

Sages called Devala are connected with dharmaśāstra,<sup>284</sup> astronomy,<sup>285</sup> astrology, and medicine.<sup>286</sup>

The grandfather of Pāṇini was also called Devala.

Devala and his treatise, called *Devalīya*, are quoted by Anantakumāra in his *Yogaratanasamuccaya*,<sup>287</sup> in Ballālasena's *Adbhutasāgara*,<sup>288</sup> Lakṣmīdhara's *Kṛtyakalpataṛu*,<sup>289</sup> Mitrāmīśra's *Vīramitrodaya*,<sup>290</sup> Śivadatta's auto-commentary on the *Śivakoṣa*,<sup>291</sup> Śrīdāsapāṇḍita's commentary on the *Aṣṭāṅgaḥṛdayasamhitā*,<sup>292</sup> and in the *Tāmbūlakalpasamgraha*.

DHANVANTARI,<sup>293</sup>

DHAUMYA is one of the sages who assembled on the slopes of the Himālayas, according to the first chapter of the *Carakasamhitā*. He is mentioned in the same context in the first chapter of the *Bhāvaprakāśa*.

Dhaumya was the younger brother of Devala and the family priest of the Pāṇḍavas. His name is associated with works on dharmaśāstra and nīti.<sup>294</sup>

A medical *Dhaumyasamhitā* is recorded in the Kavīndrācāryasūcīpatram.<sup>295</sup>

GĀLAVA takes part in the meeting of the sages in the opening chapter of the *Carakasamhitā*. The first chapter of the *Bhāvaprakāśa* mentions him in the same context.

Gālava<sup>296</sup> figures in Vedic literature, the *Mahābhārata* and the Purāṇas. He is a pupil of Viśvāmitra in the stories told about him in the *Mahābhārata*,<sup>297</sup> but a son of Viśvāmitra in most of the Purāṇas.<sup>297a</sup>

His name is associated with the Śikṣā and Kramapāṭha of the *R̥gveda*<sup>298</sup> and also with the *Yajurveda*.<sup>299</sup> He was an authority on grammar according to Yāska's *Nirukta* and Pāṇini's *Aṣṭādhyāyī*.<sup>300</sup>

Pāñcāla Bābhavya, i.e., Gālava, is mentioned as an author on kāmāsāstra in Vātsyāyana's *Kāmasūtra*.<sup>301</sup>

Hemādri's *Lakṣaṇaprakāśa* refers to Gālava as an āyurvedasya kartar.<sup>302</sup> The Indian tradition regards him as the author of a lost tantra on śālākya.<sup>303</sup>

Ḍalhaṇa remarks that some consider him to be one of the twelve pupils of Dhanvantari.<sup>304</sup>

Gālava is obviously an authority on medicine in a quotation, ascribed to the dhānvantariyāḥ, in Śivadatta's auto-commentary on the *Śivakoṣa*.<sup>305</sup>

GARGA was one of the sages who gathered in the Himālayas according to the first chapter of the *Bhāvaprakāśa*. The Bower MS (I.8) mentions him in a comparable context. He is not referred to in the *Carakasamhitā*.<sup>306</sup>

Several Gargas are known in Sanskrit literature. They are associated with dharmaśāstra, karmavipāka,<sup>307</sup> grammar, astronomy, astrology, prognostication,<sup>308</sup> fortune-telling,<sup>309</sup> vastuśāstra,<sup>310</sup> and medicine.<sup>311</sup>

Garga's name is found to be connected with the medical science as applied to human beings and horses.<sup>312</sup>

A *Jvaraśānti* from the *Gargasamhitā*<sup>313</sup> is recorded in the manuscript catalogues.<sup>314</sup> The *Matsyapurāṇa* contains some verses on abnormal pregnancies by Garga.<sup>315</sup> The *Kāśyapīyakṛtīśūkti* refers to Garga as the author of a treatise on cookery (pākāśāstra).<sup>316</sup>

Garga is quoted, as a medical authority, in Cāmuṇḍa's *Jvaratimirabhāskara*,<sup>317</sup> Kavikaṇṭhahāra's *Prayogaratanākara*, Śrīkrṣṇavidyāvāgīśabhaṭṭācārya's *Ṣaṭkarmadīpikā*,<sup>318</sup> and Ṭoḍara's *Āyurvedasaukhya*.<sup>319</sup>

An authority called Vṛddhagarga is known as an astronomical authority, referred to in Varāhamihira's *Bṛhatsamhitā*.<sup>320</sup> He is also quoted in Ballālasena's *Adbhutasāgara*<sup>321</sup> and in the *Bhesajjamañjūsāsanaya*.

GĀRGYA takes part in the meeting of sages in the opening chapter of the *Carakasamhitā*. He is mentioned in the same context in the first chapter of the *Bhāvaprakāśa*, where, moreover, Garga is present, whose name is not found in the list of the *Carakasamhitā*. Ḍalhaṇa (ad Su.Sū.1.3) states that he, along with some other sages who are known as specialists in śālākya, is by some regarded as a pupil of Dhanvantari. In the *Kāśyapasamhitā* (Si.2.11) he expresses the view that a clyster (basti) can be given to children from the day they are born. The *Hārītasamhitā* (pariśiṣṭādhyāya 9) mentions a medical *Gārgīsamhitā*. A MS of the *Ātreyasamhitā*, probably containing some version of the *Hārītasamhitā*, also mentions a medical treatise called *Gārgī*.<sup>322</sup> The *Kalyāṇakāraka* refers to Gārgya as being opposed to a non-vegetarian diet. In

Pālākāpya's *Hastyāyurveda* Gārgya is one of the sages at Romapāda's court who want to be instructed in the medicine of elephants. The same treatise (IV.4) relates that in his opinion semen (śukra) and brain tissue (mastiṣka) do not belong to the group of fatty substances to be employed in medicine; in this he contradicts Pālākāpya. A medical *Gārgyasamhitā* is said to have formed part of the library of Kavīndrācārya.<sup>323</sup>

Several Indian scholars ascribe a lost śālākyaṇtra to Gārgya.<sup>324</sup>

Several Gārgyas, descendants of Garga, are known in Vedic literature,<sup>325</sup> the *Mahābhārata*<sup>326</sup> and the *Purāṇas*; they are connected, apart from medicine, with several sciences,<sup>327</sup> such as grammar, dharmasāstra, takṣasāstra, vāstuśāstra, agriculture,<sup>328</sup> and meteorology.<sup>329</sup>

Gārgya is quoted in the *Virasīṃhāvaloka*.<sup>330</sup> A medical treatise, called *Uttaragārgya*, is quoted several times in Anantakumāra's *Yogaratanasamuccaya*.<sup>331</sup>

GAUTAMA is one of the sages enumerated in the opening chapter of the *Carakasamhitā*.<sup>332</sup> He is present when a number of sages approach Indra on a second occasion (Ca.Ci.1<sup>4</sup>.3) and takes part in the discussion with Atreya on the best drug to be used in a non-oleaginous enema, where he brings forward that the seeds of dhāmārgava are his choice (Ca.Si.11.4 and 6cd-7ab). Gautama is also a member of the assembly of sages in the first chapter of the *Bhāvaprakāśa*. A Subhūti Gautama<sup>333</sup> appears in the *Suśrutasamhitā* (Śā.3.32), where he expresses the opinion that the trunk is the first part of the embryo to be formed. A MS of the *Ātreyasamhitā*, probably containing a version of the *Hārītasamhitā*, mentions a medical treatise called *Gautamī*.<sup>334</sup> The *Kalyāṇakāraka* refers to a Gautama who is opposed to a non-vegetarian diet, and to another authority of the same name who is favourably disposed towards such a diet.

Several Gautamas are known in Sanskrit literature. Gotama and his sons are already mentioned in the *Rgveda*. A verse of *Rgveda* 10.137, said to be curative of all diseases, is ascribed to him.<sup>335</sup> A number of descendants of Gotama, called Gautamas,<sup>336</sup> are referred to in Vedic literature, the *Mahābhārata*, the *Purāṇas*, etc.<sup>337</sup> The oldest dharmaśūtra is that of Gautama.<sup>338</sup> The *Nyāyasūtra* is ascribed to Akṣapāda Gotama or Gautama. Other sciences, with which his name is associated, are astronomy, astrology, archery, and śakunaśāstra.<sup>339</sup>

Gautama's name is also met with in the field of veterinary science. He is mentioned in the first chapter of Nīlakaṇṭha's *Mātāṅgalīlā* as one of the sages who granted Romapāda the boon to catch wild elephants. In Pālākāpya's *Hastyāyurveda* he is one of the sages at Romapāda's court who want instruction in the medicine of elephants; Pālākāpya's treatise states that Gautama distinguished six classes of elephants (III.8.298) and four types of fatty substances to be employed in medicine (IV.4). Godāvāra's *Harīharacaturāṅga* (1.173–174) refers to Gautama's distinction of six classes of elephants. Somadeva's *Yaśastilaka* also refers to him as an authority on elephant-lore.<sup>340</sup> A Gautama is known as the author of a treatise on the diseases of cattle (gavāyurveda), since quotations from it are found in the *Rājamārtanḍa*.<sup>341</sup> The *Arthasāstra* is acquainted with Gautama as an authority on cattle-breeding.<sup>342</sup>

In the field of human medicine Gautama is traditionally regarded as the author of a śalyaṇtra.<sup>343</sup>

A medical *Gautamaśaṃhitā* is also recorded.<sup>344</sup>

Apart from the above-mentioned medical treatises, Gautama is referred to or quoted in the *Aṣṭāṅgasamgraha*,<sup>345</sup> the *Bhesajjamañjūsāsannaya*,<sup>346</sup> by Gayadāsa,<sup>347</sup> in the *Haṃsarājanidāna*,<sup>348</sup> the toxicological *Kāśyapasaṃhitā*,<sup>349</sup> the *Nāḍīprabodhana*, Rājīvalocana's *Siddhayogāṃava*,<sup>350</sup> Vācaspati's commentary on the *Mādhavanidāna*,<sup>351</sup> Vijayarākṣita's part of the *Madhukośa* on the *Mādhavanidāna*,<sup>352</sup> and the *Virasiṃhāvaloka*.<sup>353</sup>

An authority called Vṛddhagautama is quoted in the *Āyurvedābhdhisāra*<sup>354</sup> and *Vīrasīṃhāvaloka*.<sup>355</sup>

The quotations from and references to Gautama do not justify the attribution of a surgical treatise (śalyatantra) to him, but point to a specialist in toxicology and prognostication.

The spread of Gautama's fame as a medical authority to Tibet is attested by the mention of Gotamabharta as one of the authors from whose writings a Tibetan *Āyurvedasarvasārasaṃgraha* was compiled.<sup>356</sup>

HĀRĪTA is a member of the group of six pupils of Ātreya Punarvasu who are traditionally credited with the composition of a treatise on kāyacikitsā, based on the teachings of their preceptor (Ca.Sū.1.30–33).<sup>357</sup>

The śaṃhitā of Hārīta is referred to by Āḍhamalla,<sup>358</sup> and in the *Brhannighaṇṭu-ratnākara*.<sup>359</sup> Hārīta's opinion on a particular subject is referred to by Vāgbhaṭa, next to that of Agniveśa.<sup>360</sup> His weight as a medical authority appears from Hemādri's commentary on the *Aṣṭāṅgaḥṛdayasaṃhitā*<sup>361</sup> and Kṣemaśarman's *Kṣemakutīhala*,<sup>362</sup> which give him the same status as Caraka and Suśruta.

The Bower MS<sup>363</sup> describes Hārīta<sup>364</sup> as forming part of a group of sages who are interested in medicinal plants.

Hemādri's *Lakṣaṇaprakāśa* makes mention of Hārīta as one of the originators of āyurveda.<sup>365</sup> Hārīta is considered to be one of the paramarṣis.<sup>366</sup>

The Tibetan tradition is acquainted with Hārīta as a medical authority; his Tibetan name is Ljañ-sñoḥi bu in the *Mahāvvyutpatti*.<sup>367</sup>

Hārīta's position in the *Hārītasamhitā* is comparable to that of Agniveśa in the *Carakaśaṃhitā* and Bhela in the *Bhelaśaṃhitā*. He is represented as the chief pupil of Ātreya and receives his medical instruction from the latter.<sup>368</sup>

Hārīta and his treatise are quoted in a large number of medical works.<sup>369</sup>

Medical works associated with Hārīta's name are the *Hārītavvyutpatti*,<sup>370</sup> a *Lohatantra*,<sup>371</sup> a *Nāḍītantra*,<sup>372</sup> and a *Takrapānavidhi*.<sup>373</sup> A *Cikitsāsāhasya* is attributed to Hārītamuni.<sup>374</sup>

Persons called Hārīta are well known in Indian literature. Branches of learning with which they are connected are, in particular, dharmasāstra and philosophy.<sup>375</sup>

HIRANYĀKṢA<sup>376</sup> is a member of the group of sages enumerated in the opening chapter of the *Carakaśaṃhitā*.<sup>377</sup> In the discussion on the origin of the individual he rejects Vāryovida's thesis and expresses the opinion that the individual and his diseases arise from the six dhātus,<sup>378</sup> as declared by the Sāṃkhya philosophers (Ca.Sū.25.14–

15). Hiranyākṣa is in his turn contradicted by Kauśika, who calls his opponent Kuśika. Hiranyākṣa is also present among the sages who deliberate on the tastes and holds the view that four tastes should be distinguished: savoury and wholesome, savoury and unwholesome, unsavoury and wholesome, unsavoury and unwholesome (Ca.Sū.26.3 and 8); in this chapter he is called Hiranyākṣa Kauśika. The *Kāśyapasaṃhitā* (Sū.27.3) presents Hiranyākṣa as a sage who distinguishes seven types of diseases: caused by one of the three doṣas, by a combination of two doṣas, and by all three collectively. The *Bhāvaprakāśa* mentions Hiranyākṣa in its first chapter as one of the sages assembled on the slopes of the Himālayas. The *Kalyāṇakāraka* refers to Hiranyākṣaka as one of those who are opposed to a non-vegetarian diet.

The Indian tradition regards Hiranyākṣa as the author of a lost tantra on *kaumārabhṛtya*.<sup>379</sup>

Hiranyākṣa is quoted by Āḍhamalla,<sup>380</sup> Anantakumāra,<sup>381</sup> the *Bhesajjamañjūsā-sannaya*,<sup>382</sup> Cakrapāṇidatta,<sup>383</sup> Gayadāsa,<sup>384</sup> the *Kairālī* commentary on the Uttara-sthāna of the *Aṣṭāṅgharḍdayasaṃhitā*,<sup>385</sup> Śivādāsasena,<sup>386</sup> Śrīdāsapaṇḍita,<sup>387</sup> Śrīka-ṇṭhadatta,<sup>388</sup> Vācaspati,<sup>389</sup> and the *Vyākhyāsāra* on the *Aṣṭāṅgharḍdayasaṃhitā*.<sup>390</sup>

JAMADAGNI<sup>391</sup> is a member of the assembly of sages in the opening chapters of the *Carakasamhitā* and *Bhāvaprakāśa*. The *Carakasamhitā* (Ci.1<sup>3</sup>.4–6) refers to him as one of the sages who, by means of the use of a particular rasāyana, acquired a life free from disease and the afflictions of old age. Hemādri remarks in his *Lakṣaṇaprakāśa* that Jamadagni was an originator of āyurveda (āyurvedasya kartar).<sup>392</sup> Pālakāpya's *Hastyāyurveda* mentions him as one of the sages at Romapāda's court who want to be instructed in elephant medicine. A medical *Jamadagnisaṃhitā* is also recorded.<sup>393</sup>

Jamadagni is already associated with medicine in the Vedas. A verse of *Rgveda* 10.137, a hymn said to be curative of all diseases, is ascribed to him in Sāyaṇa's commentary. *Atharvaveda* 5.23.10 connects Jamadagni with the destruction of worms; 6.137 alludes to the story that he uprooted the herb nitatnī in order to promote the growth of his daughter's hair.<sup>394</sup>

The *Brhadāranyakopaniṣad* associates Jamadagni with one of the prāṇas.<sup>395</sup>

Ḍalhaṇa quotes a verse from Jamadagni that deals with warfare<sup>396</sup> and may be from a treatise on dhanurveda or arthaśāstra.<sup>397</sup> Rciṅka passed on his knowledge of this science to his son Jamadagni.<sup>398</sup>

In the *Mahābhārata* and the Purāṇas, Jamadagni is famous as the father of Paraśurāma.

JANAKA of Videha (Vaideha) appears once in the *Carakasamhitā*. He brings forward, in one of the chapters of the Śārīrasthāna (Śā.6.21), that the sense organs arise first during embryonic development. In the *Kāśyapasaṃhitā* (Si.3) he is one of a number of sages who give their views on emetics and purgatives in the treatment of children. The *Aṣṭāṅgasamgraha* mentions him as one to be honoured during the preparation of a panacea in the form of an eye-salve (añjana), called sarvārthasiddhāñjana (A.s.Sū.8.58–59).<sup>399</sup>

Aruṇadatta says that Janaka was the author of a treatise (tantra) on diseases of the ears, eyes, nose and throat, the domain of a specialist in śālākya.<sup>400</sup> A *Janakatantra* is



quoted in the glosses accompanying a MS of the *Aṣṭāṅgharḍayasaṃhitā*.<sup>401</sup>

The *Brahmavaivartapurāṇa* (Brahmakhaṇḍa 16.9–22) refers to Janaka as a yogin who composed a medical treatise called *Vaidyasaṃdehabhāṇjana*.<sup>402</sup> Hemādri, in his *Lakṣaṇaprakāśa*, calls the royal sage (rājarṣi) Janaka an originator of āyurveda.<sup>403</sup>

Janaka is said to be quoted in the *Madhukośa* and referred to by Gayadāsa.<sup>404</sup> A formula of prasāraṇītaila is ascribed to him.<sup>405</sup>

Janaka was a king of Videha,<sup>406</sup> which implies that references to and quotations from (the king of) Videha may apply to Janaka; another king of Videha, Nimi, a specialist is śālākya as well, is, however, more often quoted than Janaka in medical texts, and also referred to as (the king of) Videha.<sup>407</sup>

An illustration of this difficulty in identifying the king of Videha, when no proper name is added,<sup>408</sup> is found in Ḍalhaṇa's commentary on Su.U.1.4cd-8ab, where the king of Videha is mentioned. Ḍalhaṇa regards him as Nimi, but informs us that others read a number of additional stanzas, telling a story how Janaka lost his eyesight and later received from the sun god, who was pleased by his penance, the cakṣurveda, i.e., the science of ophthalmology. The list of authors of a lost śālākyaśāstra, found in the books of several Indian scholars,<sup>409</sup> comprise a *Videha-* and a *Nimitantra*, which either means that Videha is distinct from both Janaka and Nimi, or that he is identical with Janaka.<sup>410</sup>

The *Aṣṭāṅgharḍayasaṃhitā* describes a remedy against all eye diseases (U.13.26–27) and another one against diseases of the oral cavity and throat (U.22.81–83), both said to be devised by the king of Videha, identified by the commentator Candrananda as Janaka, c.q., the sage from Mithilā (i.e., Janaka).<sup>411</sup> The *Aṣṭāṅgasamgraha* (U.17.7) recommends that obeisance be made to the king of Videha, identified as Janaka by the commentator Indu, before proceeding to the couching of a cataract. The same treatise describes the seven vegas of poison according to various authorities; one of these is the king of Videha, identified again as Janaka by Indu (U.40.34).

The references to Janaka point to him as a specialist in śālākya.

JĀTŪKARṆA<sup>412</sup> or -karṇya<sup>413</sup> is in the *Carakasamhitā* one of the six disciples of Ātreya Punarvasu who, each one separately, composed their own medical works.<sup>414</sup>

Several Jātūkarṇas and -karṇyas are known in Vedic literature and the Purāṇas.<sup>415</sup> Jātūkarṇa is also quoted in works on dharmaśāstra.<sup>416</sup>

Jātūkarṇa is traditionally regarded as the author of a lost saṃhitā on kāyacikitsā.<sup>417</sup> A *Jātūkarṇyatantra* and -saṃhitā are recorded in the list of Kavīndrācārya's manuscripts.<sup>418</sup> The *Jātūkarṇasaṃhitā* was accessible to Niścalakara, since he consulted three old copies of this treatise in order to test the correctness of a particular reading.<sup>419</sup> Cakrapāṇidatta remarks that the work of Jātūkarṇa was not, like the *Agniveśatantra*, redacted subsequently by another author.<sup>420</sup>

Hemādri's *Lakṣaṇaprakāśa* calls Jātūkarṇa one of the founders of āyurveda.<sup>421</sup> It is said that he is mentioned by Śālihotra as a medical authority.<sup>422</sup> Jātūkarṇa (Rgya-skyegs rna) is one of a series of medical authorities enumerated in a Sanskrit-Tibetan lexicon, called *Mahāvvyutpatti*, prepared by order of the king Khri-lde sroṅ-bṅcan (A.D. 816–838).<sup>423</sup>

Apart from the sources already mentioned, Jātūkarṇa or -karṇya is quoted or referred to by the following authors and in the following works: Anantakumāra,<sup>424</sup> the *Basavarājya*,<sup>425</sup> Bhāvamīśra,<sup>426</sup> the *Bhesajjamañjūsānaya*,<sup>427</sup> Cakrapānidatta,<sup>428</sup> Candrāṭa,<sup>429</sup> Dalhaṇa,<sup>430</sup> Gaṅgādhara,<sup>431</sup> Gayadāsa,<sup>432</sup> Hemādri,<sup>433</sup> Indu,<sup>434</sup> Jejjāta,<sup>435</sup> the *Jvaracikitsita* and *Jvarasamuccaya*, the *Kairālī* commentary on the *Aṣṭāṅgahṛdayasamhitā*,<sup>436</sup> Karandīkar in his *Nidānadīpikā*,<sup>437</sup> the *Kāśyapasamhitā*,<sup>438</sup> Nāganātha in his *Nidānapradīpa*, Narahari in his *Vāgbhaṭamaṇḍana*,<sup>439</sup> Niścala-kara,<sup>440</sup> the *Rasaratnākara*,<sup>441</sup> Śivadāśasena,<sup>442</sup> Sodhala,<sup>443</sup> Śrīdāsapaṇḍita,<sup>444</sup> Śrīkanṭhadatta,<sup>445</sup> Vijayarakṣita,<sup>446</sup> Yogendranātha's *Āyurvijñānaratnākara*, and an anonymous text.<sup>447</sup> Jātūkarṇa is also quoted by the unknown author of the interpolated portions of Niścalakara's *Ratnaprabhā*.<sup>448</sup>

The quotations from Jātūkarṇa show that the treatise going under his name was a complete textbook, similar to the *Agniveśatantra* or *Carakasamhitā*,<sup>449</sup> and held in high esteem.

Niścalakara refers very frequently to Jātūkarṇa's treatise, once called the *Jātūkarṇatantra*,<sup>450</sup> in order to confirm quotations on the same subjects from the *Carakasamhitā*. Both works were related to each other, as appears from Niścala calling the *Jātūkarṇatantra* a *saṁānatānta*.<sup>451</sup> Occasionally, Jātūkarṇa's views differed from those found in the *Carakasamhitā*.<sup>452</sup>

Jātūkarṇa's work was one of the sources of Cakrapānidatta's *Cikitsāsāmagraha*.<sup>453</sup> It was probably one of the sources of the *Ma'din al-Šifā'*, a Persian medical treatise, compiled by Miyaṇ Bhūwah in 1512.<sup>454</sup>

Niścala remarks that Mādhava followed a particular opinion of Jātūkarṇa.<sup>455</sup> Vāgbhaṭa sometimes preferred Jātūkarṇa to Caraka.<sup>456</sup> Candrāṭa was also influenced by Jātūkarṇa.<sup>457</sup>

KAIKASĒYA<sup>458</sup> is a member of the assembly of sages described in the opening chapter of the *Carakasamhitā*. The first chapter of the *Bhāvaprakāśa* omits his name in its enumeration of the participants in this assembly.

G. Hāldār regards Kaikasēya as a son of Kaikaśī, known from the *Rāmāyaṇa*, where she is the mother of Rāvaṇa, Kumbhakarṇa and Vibhīṣaṇa;<sup>459</sup> in his opinion, Rāvaṇa may be meant, who is well known as the author of medical treatises.<sup>460</sup>

KĀNKĀYANA<sup>461</sup> is a member of the assembly of sages in the opening chapter of the *Carakasamhitā*. He is mentioned in the same context in the first chapter of the *Bhāvaprakāśa*. In the *Carakasamhitā* he appears on a number of occasions. He takes part in the discussion on *vāta* (Ca.Sū.12.6). In the chapter on the origin of the individual, he rejects Bharadvāja's thesis and declares Prajāpati, the creator of the sentient and insentient world, to be the origin of all pleasure and pain (Ca.Sū.25.22–23). Kānkāyana also expresses his view on the number of the tastes, stating that they are innumerable (Ca.Sū.26.8).<sup>462</sup> In the discussion on the formation of the embryo, he claims that the first part to develop is the heart (Ca.Śā.6.21).<sup>463</sup> The *Carakasamhitā* calls him the physician from Bāhlika (Sū.12.6; 26.8; Śā.6.21), even the best of physicians from that country (Sū.26.5), which is usually identified as Balkh, i.e., Bactria.<sup>464</sup> The *Carakasamhitā* is

the only text that informs us of the country of origin of Kāṅkāyana.

The *Kāśyapaśamhitā* (Sū.27.3) records that Kāṅkāyana distinguished three types of diseases: curable, mitigable, and incurable. Dalhaṇa states that some regard him as one of those pupils of Dhanvantari who were specialists in śālākya.<sup>465</sup> The Indian tradition still regards him as the author of a lost tantra on śālākya.<sup>466</sup> In Pālakāpya's *Hastayurveda*, Kāṅkāyana figures among the sages who want instruction in the medicine of elephants.

Kāṅkāyana is not a name only found in medical literature. His name appears among the teachers of the *Atharvavedaparīṣiṣṭa*.<sup>467</sup> The *Kauśikasūtra* mentions a Kāṅkāyana who is neither designated as a Bactrian nor as a physician.<sup>468</sup> A medical authority Kakkāyana, i.e., Kāṅkāyana, is met with in the *Milindapañha*.<sup>469</sup>

P.V. Sharma<sup>470</sup> suggested that the name Kāṅkāyana may be derived from the term *kaṅka*<sup>471</sup> as designating a pretended brāhmaṇa (chadmadvīja, chadmavīpra),<sup>472</sup> on account of his origin from a peripheral and unorthodox part of the Āryan territory.

Repeatedly the question has been raised whether or not Kāṅkāyana is identical with an Indian, called Kaṅkah, whose name appears in a number of Arabic texts as a physician and astronomer-astrologer.<sup>473</sup> Opinions differ on this point.<sup>474</sup>

A small number of prescriptions are attributed to Kāṅkāyana in many medical treatises. Some of these are: Ananta's *Yogaratanasamuccaya*,<sup>475</sup> the Bower Manuscript,<sup>476</sup> the *Cakradatta*,<sup>477</sup> Candrāṭa's *Yogaratanasamuccaya*, Dattarāma's *Bṛhadrasarājasundara*,<sup>478</sup> the treatise called *Dhanvantari*,<sup>479</sup> Gopālakṛṣṇa's *Rasendrasārasaṃgraha*,<sup>480</sup> Govindadāsa's *Bhaiṣajyaratnāvalī*,<sup>481</sup> the *Hārītasamhitā*,<sup>482</sup> the *Mādhavacikitsā*,<sup>483</sup> Māṇikyacandra's *Rasāvatāra*,<sup>484</sup> Nīścalakara's commentary on the *Cakradatta*,<sup>485</sup> Nityanātha's *Rasaratnākara*,<sup>486</sup> the *Rasasārasaṃgraha*,<sup>487</sup> the *Sahasrayoga*,<sup>488</sup> the *Śārṅga-dharasamhitā*,<sup>489</sup> Soḍhala's *Gadanigraha*,<sup>490</sup> Tīṣaṭa's *Cikitsākalikā*,<sup>491</sup> the *Ṭoḍarānanda*,<sup>492</sup> Vāgbhaṭa's *Aṣṭāṅgaśaṃgraha*,<sup>493</sup> the *Vaidyacintāmaṇi*,<sup>494</sup> Vaṅgasena's *Cikitsāsārasaṃgraha*,<sup>495</sup> and Vṛnda's *Siddhayoga*.<sup>496</sup>

A Kāṅkāyanīya is quoted in the *Bhesajjamañjūsāsanaya*.

KAPĪÑJALA is one of the members of the assembly of sages described in the opening chapter of the *Carakasamhitā*. He is mentioned in the same context in the first chapter of the *Bhāvaprakāśa*.

Kapīñjala is uncommon as a personal name in Indian literature.<sup>497</sup> A variant, found in part of the MSS of the *Carakasamhitā*, adopted by some editors,<sup>498</sup> and preferred by some scholars,<sup>499</sup> is Kapiṣṭhala. Sometimes Bharadvāja and Kapiṣṭhala, whose names follow one upon the other in the list of the *Carakasamhitā*, are taken as indicating one person.<sup>500</sup> Another variant of Kapīñjala is Kapidhvaja.<sup>501</sup>

The Kapiṣṭhalas, a subdivision of the Kāṭha school of the Black *Yajurveda*, were to be found in the Pañjāb, but have entirely disappeared in later times. Their recension of the Black *Yajurveda* has only fragmentarily been preserved.<sup>502</sup>

A Kapiṣṭhala is referred to as an authority on omīna (śakuna) in the *Bṛhatsamhitā* (86.1).<sup>503</sup>

A medical *Kapīñjalatantra* is recorded in some manuscript catalogues.<sup>504</sup> Some ascribe a lost tantra on *rasāyana* to Kapīñjala.<sup>505</sup>

KĀPYA<sup>506</sup> is a member of the assembly of sages described in the opening chapter of the *Carakasamhitā*. He also figures as such in the first chapter of the *Bhāvaprakāśa*. The Bower MS (I.8) mentions him in a comparable context.

The *Carakasamhitā* presents Kāpya as a sage who takes part in two discussions. The chapter on vāta includes statements by him on the effects of soma, inherent in kapha (Ca.Sū.12.12).<sup>507</sup> In the chapter on the best type of fruit to be used in a non-oleaginous enema, Kāpya's choice falls on that of kṛtavedhana<sup>508</sup> (Ca.Si.11.8cd-9ab).

Kāpya is associated with the science of elephants in Nīlakaṇṭha's *Mātāṅgalīlā*<sup>509</sup> and Pālakāpya's *Hastāyurveda*.<sup>510</sup>

A person of the same name is known from other branches of Indian literature.<sup>511</sup>

KĀŚYAPA and Mārīci Kaśyapa, both figuring in the *Carakasamhitā*, are probably identical, Kaśyapa being a son of Mārīci in the epics and the Purāṇas.<sup>512</sup> Kaśyapa, as well as Kāśyapa and Mārīca, are members of the group of sages described in the opening chapter of the *Carakasamhitā*.<sup>513</sup> The three names, as occurring in the first chapter of the *Bhāvaprakāśa*, are Kaśyapa, Kāśyapa and Mārīci.

The *Carakasamhitā* mentions Kaśyapa again as one of the sages who approached Indra on a second occasion (Ci.1<sup>4</sup>.3). In the discussion on the question which part of the embryo is formed first, Mārīci Kaśyapa articulates the view that the problem is insoluble, since the development of the embryo is inaccessible to observation (Ca.Śā.6.21).<sup>514</sup>

The *Aṣṭāṅgasamgraha* refers to Kaśyapa as one of the sages who received the āyurveda from Indra (Sū.1.4–10). He is referred to in the same context in Candranandana's *Padārthacandrikā* (ad A.h.Sū.1.3–4ab).

Kaśyapa is the teacher of Vṛddhajīvaka in the *Kāśyapasaṃhitā* or *Vṛddhajīvaki-yatantra*.<sup>515</sup> This treatise, which calls Kaśyapa also Mārīca and Prajāpati, relates that Kaśyapa composed a medical treatise that was later abridged by Vṛddhajīvaka. The *Kāśyapasaṃhitā* abounds in laudatory epithets applied to Kaśyapa.<sup>516</sup>

Kaśyapa's name is already connected with medicine in the *R̥g*- and *Atharvaveda*. A Vedic hymn, called Kaśyapa's spell and specifically concerned with the removal of disorders called yakṣman, appears to have been popular, being preserved in three closely related forms.<sup>517</sup>

Kaśyapa<sup>518</sup> is the father of the snakes in the *Mahābhārata*, where he is endowed with the knowledge of curing those bitten by them.<sup>519</sup>

Kaśyapa's name is also associated with dharmasāstra,<sup>520</sup> astrology, and related subjects.<sup>521</sup>

A medical work called *Āyurveda* is attributed to Kaśyapa.<sup>522</sup>

He is quoted as a medical authority by Cakrapāṇidatta<sup>523</sup> and in the *Jvarasamuccaya*.<sup>524</sup>

Some formulae, said to derive from Kaśyapa,<sup>525</sup> are also known.<sup>526</sup> Vāgbhaṭa's works contain a recipe devised by Vṛddhakaśyapa or -kāśyapa.<sup>527</sup>

KĀŚYAPA<sup>528</sup> is one of the sages enumerated in the opening chapter of the *Carakasamhitā*. The first chapter of the *Bhāvaprakāśa* mentions him in the same context. The *Aṣṭā-*

*ṅgasamgraha* (Sū.1.4–10) claims that Kāśyapa belonged to the sages who received the āyurveda from Indra. His name is found a second time in the *Carakasamhitā* (Ci.1<sup>3</sup>.4–6) as one of the sages who acquired a life free from disease and the ravages of old age through the use of a particular rasāyana preparation.<sup>529</sup> In the discussion on the formation of the embryo, as told in the *Bhelasamhitā* (Śā.4.30), Kāśyapa brings forward that it is the eye which develops first.

The name Kāśyapa is, as a patronymic, applied to several persons in Vedic literature, the *Mahābhārata*, and the Purāṇas.<sup>530</sup> The *Mahābhārata* presents Kāśyapa as well-versed in the treatment of snake-bites.<sup>531</sup> Kālidāsa's *Abhijñānaśākuntala* relates that Kāśyapa gave protection to Duśyānta's son, Bharata.

In Pālakāpya's *Hastyaśurveda* he is one of the sages who are interested in elephant medicine. The same treatise refers to the seven vegas,<sup>532</sup> as distinguished by Kāśyapa, that occur after the bite of a poisonous animal (II.8.13); he is also mentioned in the chapter on sphotikā (II.11.1.2 and 25); another chapter (III.8.296) states that there are eighteen mixed types of elephants according to Kāśyapa. These eighteen types of elephants, distinguished by Kāśyapa, are also referred to in Godāvara's *Hariharacaturāṅga* (1.185–186).

Kāśyapa is, apart from medicine, associated with agriculture<sup>533</sup> and a number of other sciences.<sup>534</sup>

Medical texts ascribed to him are an *Avagāhanavidhi*,<sup>535</sup> *Kāśyapasamhitā*,<sup>536</sup> *Kāśyapiyāroganidāna*,<sup>537</sup> and *Āyurvedaśāstra*.<sup>538</sup> A MS of the *Ātreyasamhitā*, probably containing some version of the *Hārītasamhitā*, mentions a medical treatise called *Kāśyapī*, associated either with Kāśyapa or Kāśyapa.<sup>539</sup>

Hemādri's *Lakṣanaprakāśa* calls Kāśyapa one of the originators of āyurveda.<sup>540</sup> He appears as a medical teacher in the toxicological *Kāśyapasamhitā*<sup>541</sup> and the *Kāśyapaṛṣproktaśtrīkṛtsūtra*.<sup>542</sup> He is usually regarded as a specialist in *kaumārabhṛtya*<sup>543</sup> and *agadatantra* (toxicology).<sup>544</sup>

The references to and quotations from Kāśyapa and his works indicate that at least three different kinds of treatise were attributed to one or more Kāśyapas, namely works on *kaumārabhṛtya* (and internal medicine), *agadatantra*, and *rasaśāstra*.<sup>545</sup> The same applies to authors called *Vṛddhakāśyapa*. Kāśyapa is also known as a medical authority in the Tibetan tradition.<sup>546</sup>

Authors and works quoting from or referring to Kāśyapa are: Āḍhamalla,<sup>547</sup> Aruṇadatta,<sup>548</sup> Āsubodha and Nityabodha Senagupta in their commentary on the *Rasaratnasamuccaya*, the *Āyurvedābhisāra*,<sup>549</sup> Bhāvamiśra,<sup>550</sup> the Bower MS,<sup>551</sup> the *Bṛhannighaṇṭurātnākara*,<sup>552</sup> Cakrapāṇidatta,<sup>553</sup> Dalhaṇa,<sup>554</sup> Dattarāma's *Ajīrmaṇjarī*<sup>555</sup> and *Rasarājasundara*,<sup>556</sup> Gayadāsa,<sup>557</sup> Govindadāsa,<sup>558</sup> Guṛājśarmamiśra's *Siddhaprayogalatikā*,<sup>559</sup> Hemādri,<sup>560</sup> Indu,<sup>561</sup> the *Jvaracikitsita*,<sup>562</sup> the *Kairālī* commentary on the Uttaraśthāna of the *Aṣṭāṅghṛdayasamhitā*,<sup>563</sup> Karandīkar's *Nidānādīpikā*,<sup>564</sup> Kāśinātha's *Cikitsākramakalpavallī*,<sup>565</sup> the *Nāḍīśāstrasamgraha*, Narahari's *Vāgbhaṭamanjara*,<sup>566</sup> the *Nighaṇṭurātnākara*,<sup>567</sup> Nīlakaṇṭha's *Basavarājīya*,<sup>568</sup> Nīśalākara's *Ratnaprabhā*,<sup>569</sup> Nityanātha's *Rasaratnākara*,<sup>570</sup> Parameśvara's *Vākyapradīpikā*,<sup>571</sup> Rāvaṇa's *Bālatantra*,<sup>572</sup> Rūpanayana's commentary on the *Yogaśataka*, Śaṃkara's *Vaidyavinoda*,<sup>573</sup> Śrīdāsaapaṇḍita,<sup>574</sup> Śrīkaṇṭhadatta,<sup>575</sup> Ṭodara,<sup>576</sup>

Trimalla,<sup>577</sup> Ugrāditya,<sup>578</sup> Vāgbhaṭa,<sup>579</sup> the *Vaidyacintāmaṇi*,<sup>580</sup> Vāgasena's *Cikitsā-sārasaṃgraha*,<sup>581</sup> and the *Yogarātnākara*.<sup>582</sup> Kāśyapa is also quoted (on agadatantra) by the unknown author of the interpolated portions of Niścalakara's *Ratnaprabhā*.<sup>583</sup>

A work called *Kāśyapīya* is quoted by Anantakumāra,<sup>584</sup> the *Bhesajjamañjūsā-sannaya*, Cakrapāṇidatta,<sup>585</sup> Ḍalhaṇa,<sup>586</sup> Gayadāsa,<sup>587</sup> Hārāṇacandra,<sup>588</sup> Śaṃkara,<sup>589</sup> Śivadāsaena,<sup>590</sup> and the author of the *Jvaracikitsita*.

A *Vṛddhakāśyapa* is quoted or referred to by Āḍhamalla,<sup>591</sup> Anantakumāra,<sup>592</sup> Cakrapāṇidatta,<sup>593</sup> Ḍalhaṇa,<sup>594</sup> Gayadāsa,<sup>595</sup> Indu,<sup>596</sup> the *Kairālī* commentary on the *Aṣṭāṅgahṛdayasaṃhitā*,<sup>597</sup> the *Kāśyapasaṃhitā*,<sup>598</sup> Narasiṃha in his commentary on the *Mādhavanidāna*, Niścalakara in his *Ratnaprabhā*,<sup>599</sup> Rāvana in his *Kumāra-tantra*,<sup>600</sup> the *Sahasrayoga*,<sup>601</sup> Śivadāsaena,<sup>602</sup> Soḍhala,<sup>603</sup> Śrīkaṇṭhadatta,<sup>604</sup> Vācas-pati,<sup>605</sup> and Vāgbhaṭa.<sup>606</sup>

A *Mahākāśyapīya* and *Vṛddhakāśyapīya* are quoted in the *Bhesajjamañjūsā-sannaya*.

KĀTYĀYANA is a member of the assembly of sages described in the opening chapter of the *Carakasamhitā*. His name occurs in the same context in the first chapter of the *Bhāvaprakāśa*.

Kātyāyana's name is rare in Sanskrit medical literature, but more frequent in relationship to other branches of learning.<sup>607</sup> A *Sarvānukramaṇī* of the *Rgveda*, a *Prātiśākhya* of the White *Yajurveda*, a *śrautasūtra*, *śulvasūtra*, and works on *dharmaśāstra* are attributed to him; a famous Kātyāyana was the author of the *Vārtika* on Pāṇini's *Aṣṭādhyāyī*,<sup>608</sup> the name is also found in Bhaṭṭotpala's commentary on the *Bṛhatsaṃhitā* of Varāhamihira.<sup>609</sup>

Kātyāyana is regarded as the author of a lost tantra on *śālākya*.<sup>610</sup>

A medical work, called *Kātyāyanīya*, is quoted by Anantakumāra<sup>611</sup> and in the *Bhesajjamañjūsā-sannaya*. The *Vīrasīṃhāvaloka* refers once to Kātyāyana.<sup>612</sup>

KAUṆḌINYA<sup>613</sup> is a member of the assembly of sages described at the beginning of the *Carakasamhitā*. He is mentioned in the same context in the first chapter of the *Bhāvaprakāśa*. The *Kalyāṇakāraka* refers to him as one of those who are opposed to a non-vegetarian diet.

Kauṇḍinya is the name of an ancient sage, amongst other things connected with the science of grammar.<sup>614</sup>

KAUŚIKA is a sage whose name appears twice in the *Carakasamhitā*. He gives his opinion on the origin of the individual, declaring the parents to be the origin of the individual and his diseases (Sū.25.16–17).<sup>615</sup> He is also present among the sages who discuss which fruit can best be used in a non-oleaginous enema, but does not give his own view on the subject (Si.11.4).

Kauśika's name is connected with the *Kauśikasūtra* of the *Atharvaveda*<sup>616</sup> and with the *Atharvavedaparīṣiṣṭa*. The *Bṛhadāranyakopaniṣad* mentions a teacher called Kauśika, pupil of Kauṇḍinya. A sage called Kauśika was known to Pāṇini; the *Mahābhārata* also refers to a person of this name.<sup>617</sup>

Hemādri's *Lakṣaṇaprakāśa* knows Kauśika as one of the originators of āyurveda.<sup>618</sup>

He is also mentioned as a medical authority in a *Kāśyapasaṃhitā*.<sup>619</sup>

Kauśika is quoted or referred to by Gopāladāsa in his *Cikitsāmrta*, in the *Nāḍī-śāstrasaṃgraha*,<sup>620</sup> by Niścalakara, and by Śrīvallabhagaṇi in his commentary on Hemacandra's *Nighaṇṭuseśa*.<sup>621</sup>

Śiva (called Giritanayāvallabha) revealed the formula of rāsnādikvātha to a person called Kauśika.<sup>622</sup>

Niścala quotes twenty-one verses of Kauśika on the influence of nakṣatras on the course of diseases and on rituals to avert or counter these influences.<sup>623</sup>

KṚṢṆĀTREYA is a problematic figure in the medical tradition, since it is a vexed question whether he is identical with or different from Ātreya Punarvasu.<sup>624</sup> He is not mentioned as a member of the assembly of sages in the opening chapters of the *Carakasamhitā*<sup>625</sup> and the *Bhāvaprakāśa*. The text of the *Carakasamhitā* as it has come down to us in the version by Dṛḍhabala regards Kṛṣṇātreya as identical with Ātreya, the teacher of Agniveśa, in the chapter on the three desires (Sū.11), which is said to be expounded by Ātreya at the beginning, but by Kṛṣṇātreya in the concluding verses.<sup>626</sup> The remaining parts of the *Carakasamhitā* refer to Kṛṣṇātreya in connection with a number of recipes,<sup>627</sup> which conveys the impression that he differs from Ātreya Punarvasu.

Kṛṣṇātreya's name appears a number of times in the *Bhelasamhitā*. He is apparently the same as Ātreya in the vātakalākaliya chapter (Sū.16.1);<sup>628</sup> his identity cannot be established with certainty on the other two occasions where his opinion is referred to.<sup>629</sup> The *Aṣṭāṅgasaṃgraha* mentions him on the subject of signs foreboding death (arīṣṭa),<sup>630</sup> and, twice, in verses on technical rules (paribhāṣā) regarding the preparation of medicines.<sup>631</sup> Technical rules of Kṛṣṇātreya are also quoted or referred to by Niścalakara.<sup>632</sup>

Numerous quotations from and references to Kṛṣṇātreya prove that he is usually another authority than Ātreya,<sup>633</sup> although regarded as identical by some commentators<sup>634</sup> and quite a number of modern Indian scholars.<sup>635</sup> Some of the latter solve the problems raised by their propositions by assuming that one and the same person was, as Ātreya Punarvasu, the teacher of Agniveśa in the *Carakasamhitā*, and, as Kṛṣṇātreya, the author of a medical treatise.<sup>636</sup> Others refer to Vedavyāsa, who was also called Kṛṣṇadvaipāyana, and suggest that Ātreya may have been known as Kṛṣṇātreya, because he adhered to the Black Yajurveda.<sup>637</sup> The treatise, attributed to Kṛṣṇātreya and profusely quoted, was probably a comprehensive medical textbook,<sup>638</sup> and not, as often supposed on rather slender grounds,<sup>639</sup> a śālākya tantra only.<sup>640</sup> A number of iatrochemical formulae are also ascribed to Kṛṣṇātreya.

Authors and works referring to Kṛṣṇātreya or quoting him are: Anantakumāra,<sup>641</sup> Arunadatta,<sup>642</sup> the *Bāhaṭa*,<sup>643</sup> the *Bheṣajakalpa*,<sup>644</sup> the *Brhannighaṇṭurātṇākara*,<sup>645</sup> Cakrapāṇidatta,<sup>646</sup> Candranandana,<sup>647</sup> Candraṭa,<sup>648</sup> the *Carakasamhitā*,<sup>649</sup> Dalhaṇa,<sup>650</sup> Dattātreya,<sup>651</sup> the *Dhanvantari*,<sup>652</sup> Govindadāsa,<sup>653</sup> the *Hārītasamhitā*,<sup>654</sup> Indu,<sup>655</sup> Kṛṣṇaśāstrī Bhāṭavadekar's *Rasāyanasaṃgraha*,<sup>656</sup> the *Mādhavacikitsā*,<sup>657</sup>

Mādhava Upādhyāya,<sup>658</sup> Niścalakara,<sup>659</sup> Nityanātha's *Rasaratnākara*,<sup>660</sup> the *Rasakāmadhenu*,<sup>661</sup> the *Rasaratnadīpikā*,<sup>662</sup> the *Rasendracintāmaṇi*,<sup>663</sup> Śārṅgadhara,<sup>664</sup> Śivadāsaena,<sup>665</sup> Sodhala,<sup>666</sup> Śrīdāsapaṇḍita,<sup>667</sup> Śrīkaṇṭhadatta,<sup>668</sup> Ṭoḍara,<sup>669</sup> Trimala,<sup>670</sup> Vāgbhaṭa,<sup>671</sup> the *Vaidyacintāmaṇi*,<sup>672</sup> Vaṅgasena,<sup>673</sup> and the *Yogaratanākara*.<sup>674</sup> Formulae attributed to Kṛṣṇātreya will certainly be found in many more treatises.<sup>675</sup>

The quotations from and references to Kṛṣṇātreya cover the whole of aṣṭāṅgāyurveda and not merely a particular branch of it.<sup>676</sup> The treatise that went under his name must have been rather close to the *Carakasamhitā*,<sup>677</sup> but it also differed from it as appears from many references and quotations.<sup>678</sup> Some verses said to derive from Kṛṣṇātreya refer to diseases which are unknown in the classical samhitās<sup>679</sup> and thus give evidence of the tendency of giving weight to more recent knowledge by attributing it to ancient sages. This trend explains that even rasayogas are attributed to Kṛṣṇātreya.

It is remarkable that many more formulae are connected with Kṛṣṇātreya than with Ātreya. Kṛṣṇātreya's father, Kṛṣṇātri, is also mentioned in medical treatises. Sodhala describes a formula that endows one with a memory like that of Kṛṣṇātri.<sup>680</sup> Ṭoḍara's *Āyurvedasaṅkhyā* contains a prescription of Kṛṣṇātri.<sup>681</sup> Some, basing themselves on purāṇic literature, regard Kṛṣṇātreya as identical with one of the sons of Atri, Durvāsa, who was called Kṛṣṇātreya on account of his swarthy complexion.<sup>682</sup> Others refer to Vedic texts in order to prove that Kṛṣṇātreya was a descendant of Atri.<sup>683</sup>

KṢĀRAPĀṆĪ<sup>684</sup> was one of the six disciples of Ātreya Punarvasu who composed their own medical treatise (tantra).<sup>685</sup> Hemādri mentions him as one of the founders of āyurveda in his *Lakṣaṇaprakāśa*.<sup>686</sup>

Authors and works quoting from or referring to him are: the *Amṛtasāgara*,<sup>687</sup> Anantakumāra,<sup>688</sup> Aruṇadatta,<sup>689</sup> the commentary on the *Āyurvedābhdhisāra*,<sup>690</sup> the *Bhesajjamañjūsāsannaya*, Cakrapāṇidatta,<sup>691</sup> Candranandana,<sup>692</sup> Candrāṭa,<sup>693</sup> Dalhaṇa,<sup>694</sup> Jejjāta,<sup>695</sup> the *Kairālī* commentary on the Uttarasthāna of the *Aṣṭāṅgahrdayasaṅhitā*,<sup>696</sup> Nāganātha in his *Nidānapradīpa*,<sup>697</sup> Narahari in his *Vāgbhaṭamaṇḍana*,<sup>698</sup> Narasiṃha in his commentary on the *Mādhavanidāna*, Niścalakara,<sup>699</sup> Parameśvara,<sup>700</sup> Śivadāsaena,<sup>701</sup> Sodhala,<sup>702</sup> Śrīdāsapaṇḍita,<sup>703</sup> Śrīkaṇṭhadatta,<sup>704</sup> Ṭoḍara,<sup>705</sup> Ugrāditya,<sup>706</sup> Vācaspati,<sup>707</sup> Vijayarakṣita,<sup>708</sup> the *Yogaratanākara*,<sup>709</sup> and Yogīndranāthasena.<sup>710</sup> Kṣārapāṇi is also quoted by the unknown author of the interpolated portions of Niścalakara's *Ratnaprabhā*.<sup>711</sup>

The references to Kṣārapāṇi indicate that his treatise was held in high esteem. Verses of Kṣārapāṇi were incorporated in Cakrapāṇidatta's *Cikitsāsamgraha*<sup>712</sup> and Anantakumāra's *Yogaratanasamuccaya*. Formulae attributed to him are: bilvādyagṛta<sup>713</sup> and nīlagṛta.<sup>714</sup>

By far the larger majority of the quotations are in verse.

Subjects covered by the quotations are: weights and measures,<sup>715</sup> the divisions of time,<sup>716</sup> the seasons and their importance in medicine,<sup>717</sup> the physiological transformations of the elements of the body,<sup>718</sup> rules relating to sleep by day,<sup>719</sup> definitions of actions of drugs,<sup>720</sup> the properties of medicinal substances,<sup>721</sup> the description and treatment of various diseases,<sup>722</sup> recipes,<sup>723</sup> and pañcakarman.<sup>724</sup>



The commentary on the *Āyurvedābhisāra* refers to a Kṣīrapāṇi who followed the views of Bhaṭṭārahariścandra, Jejjāṭa and Gayadāsa.<sup>725</sup> This late tradition cannot relate to the ancient authority Kṣārapāṇi, who is quoted by Jejjāṭa. The same applies to the Kṣīrapāṇi to whom the *Amṛtasāgara* attributes the description of mantharajvara.<sup>726</sup>

KUMĀRĀŚIRAS BHARADVĀJA<sup>727</sup> is an authority found only in the *Carakasamhitā*. There he is one of those taking part in the discussion on vāta (Sū.12.5). On another occasion he expresses as his opinion that five tastes, derived from the five elements, should be distinguished (Sū.26.4 and 8). In the chapter where a number of sages deliberate on the part of the embryo that develops first he regards the head as this part, because of its being the seat of all the sense-organs (Śā.6.21);<sup>728</sup> this view may be responsible for his being called Kumāraśiras.<sup>729</sup> Some are convinced that the Bharadvāja of Ca.Sū.25.20–21 is actually Kumāraśiras Bharadvāja.<sup>730</sup> Bharadvāja and Kumāraśiras Bharadvāja are usually considered to be quite distinct,<sup>731</sup> the former being Ātreya's teacher and the latter one of his pupils. Ātreya's divergence of opinion on the number of the tastes and on embryonic development, compared with the views of Kumāraśiras Bharadvāja, implies that the former is the teacher and the latter a pupil.<sup>732</sup>

KUŚA SĀMKṚTYĀYANA<sup>733</sup> appears once in the *Carakasamhitā*, taking part in the deliberations on vāta by enumerating its six qualities (Sū.12.4).<sup>734</sup>

KUŚIKA<sup>735</sup> is a member of the assembly of sages described in the opening chapter of the *Carakasamhitā*. He is mentioned in the same context in the first chapter of the *Bhāvaprakāśa*. The Kuśika referred to at Ca.Sū.25.16 is the same as Hiraṇyākṣa, but the first chapter of *Carakasamhitā* and *Bhāvaprakāśa* enumerate both Kuśika and Hiraṇyākṣa as attending the meeting of the sages.

LOKĀKṢA or Laugākṣi<sup>736</sup> is one of the sages who meet on the slopes of the Himālayas in the first chapters of the *Carakasamhitā* and *Bhāvaprakāśa*.<sup>737</sup>

Laugākṣi is known in connection with a gr̥hyasūtra of the Black *Yajurveda*<sup>738</sup> and as one of the expounders of dharmaśāstra.<sup>739</sup>

MAIMATĀYANI<sup>740</sup> is a name found in the *Carakasamhitā* only, as one of the sages assembled on the slopes of the Himālayas. Gaṅgādhara interprets Maimatāyani as an epithet of Maitreya, the sage who precedes him in the list.<sup>741</sup>

MAITREYA<sup>742</sup> belongs to the group of sages described in the first chapters of the *Carakasamhitā* and *Bhāvaprakāśa*. He appears again, in the *Carakasamhitā*, in a chapter that consists of a dialogue between Ātreya and Maitreya (Sū.10) on the purpose of medical treatment; the points of view of Ātreya and Maitreya are diametrically opposed and Maitreya poses as a sceptic who is doubtful about the benefit of any treatment (Sū.10.4.5 and 23).

The *Bhelasamhitā* (Sū.12) relates that Maitreya took part in a discussion on the tastes; his own view on the subject is not mentioned.<sup>743</sup>

A medical *Maitreysamhitā* is only known from Kavīndrācārya's library.<sup>744</sup>

MĀRĪCA.<sup>745</sup>

MARĪCI<sup>746</sup> is a sage who appears in the chapter of the *Carakasamhitā* on the merits and demerits of vāta (Sū.12). He takes part in the discussion on this subject, puts a question which is answered by Vāryovida, and expounds his views on the wholesome and unwholesome effects of fire (agni) as an element that is intimately connected with pitta (Sū.12.9–11).<sup>747</sup> The first chapter of the *Bhāvaprakāśa* mentions Marīci, instead of the Mārīca of the *Carakasamhitā*, as one of the members of the assembly of sages. Pālākāpya's *Hastyaśyurveda* records his presence among the sages who want to be instructed in the science of hastyaśyurveda.

The Tibetan tradition is acquainted with a female Marīci, called Ḥod-zer-can-ma, as a medical authority.<sup>748</sup>

Marīci is known as one of the ten Prajāpatis<sup>749</sup> and forms part of the group of seven sages (saptarṣi).<sup>750</sup>

Marīci is also quoted as an authority on dharmasāstra.<sup>751</sup>

MĀRKANDEYA<sup>752</sup> is mentioned as a member of the group of sages described in the first chapters of the *Carakasamhitā* and *Bhāvaprakāśa*. In the *Suśrutasaṃhitā* he is the one who regards hands and feet as the parts which develop first in an embryo (Śā.3.32), a view held by Baḍiśa in the *Carakasamhitā*. The *Hārītasamhitā* refers in its pariśiṣṭādhyāya to a medical *Mārkaṇḍeyasaṃhitā*. A MS of the *Ātreyaśamhitā*, probably containing some version of the *Hārītasamhitā*, mentions in its introductory verses a medical treatise called *Mārkaṇḍī*.<sup>753</sup> Hemādri's *Lakṣaṇaprakāśa* regards him as one of the originators of āyurveda.<sup>754</sup> Mārkaṇḍeya is mentioned as a medical author in a *Kāśyapaśamhitā*.<sup>755</sup> The Indian tradition includes him in the list of authors of a lost tantra on kāyacikitsā.<sup>756</sup>

Mārkaṇḍeya is the reputed author of a *Nāḍīparīkṣā*<sup>757</sup> and is referred to as an authority on this subject in the *Nāḍīśāstrasaṃgraha*.<sup>758</sup>

The Purāṇas tell a story about the way Mārkaṇḍeya acquired eternal youth and a very long life.<sup>759</sup>

A recipe found in the Bower MS,<sup>760</sup> which enabled Cyavana to regain his youth and lead a life free from decrepitude and disease, made Mārkaṇḍeya attain a very advanced age. Another formula (pañcanimbāvaleha), with a similar aim, is also connected with his name.<sup>761</sup> The *Rasāṇavakalpa* (423) mentions that Mārkaṇḍa acquired a long and prosperous life thanks to the use of the juice of the uccatā plant.

A recipe ascribed to Mārkaṇḍeya is also found in Anantakumāra's *Yogaratanasamuccaya*.<sup>762</sup>

Mārkaṇḍeya is moreover well known as a narrator in the *Mahābhārata* and the *Mārkaṇḍeyapurāṇa*.<sup>763</sup>

NĀRADA is a member of the group of sages described in the opening chapter of the *Carakasamhitā*. He is mentioned in the same context in the first chapter of the *Bhāvaprakāśa*.

Nārada is a famous sage, already known in Vedic literature and figuring promi-

nently in the Purāṇas and many other branches of Sanskrit literature.<sup>764</sup> Texts connected with his name are the *Nāradapañcarātra*, *Nārada-purāṇa* and *Nārada-smṛti*.<sup>765</sup> He is, apart from medicine and dharmaśāstra, associated with other sciences, such as music and dancing, jyotiṣśāstra, sāmudrika, arthaśāstra, and vastuśāstra.<sup>766</sup> He is also an authority on ratnaśāstra.<sup>767</sup> The *Mahābhārata* describes him as an expert in Nyāya.<sup>768</sup>

Hemādri's *Lakṣaṇaprakāśa* refers to Nārada as one of the originators of āyurveda.<sup>769</sup> He is known as a medical authority in the *Milindapañha*.<sup>770</sup>

The Tibetan medical tradition is acquainted with Nārada under the name of Misbyin-gyi bu.<sup>771</sup>

Texts on veterinary medicine mention him as a sage interested in elephantology.<sup>772</sup> Medical treatises attributed to him are the *Dhātulakṣaṇa*<sup>773</sup> and *Sphoṭikāvaiddya*.<sup>774</sup> Medical works associated with his name are the *Akṣiroganirmūlana*<sup>775</sup> and *Ālokāmṛta*.<sup>776</sup>

Nārada is mentioned in a mantra found in the *Suśrutasaṃhitā*.<sup>777</sup> He is praised in the maṅgala of the *Mādhavanidānasāra* and *Sarasvatīnigraṇṭha*.

Quotations from, formulae attributed to, and references to Nārada occur in Anantakumāra's *Yogarātnasamuccaya*,<sup>778</sup> Bhāvamīśra's *Bhāvaprakāśa*,<sup>779</sup> Dattarāma's *Bṛhadrasarājāsundara*,<sup>780</sup> the *Dhanvantari*,<sup>781</sup> Gayadāsa's commentary on the Śārīrasthāna of the *Suśrutasaṃhitā*,<sup>782</sup> Gopālakṣṇa's *Rasendrasārasaṃgraha*,<sup>783</sup> Govindadāsa's *Bhaiṣajyaratnāvalī*,<sup>784</sup> the *Kāmaratna*,<sup>785</sup> Nityanātha's *Rasaratnākara*,<sup>786</sup> Rājīvalocana's *Dhanvantari's Śiddhayaogāṇava*,<sup>787</sup> the *Rasaratnādīpikā*,<sup>788</sup> *Rasaratnasamuccaya*,<sup>789</sup> *Rasārṇavakalpa*,<sup>790</sup> *Rasendracintāmaṇi*,<sup>791</sup> Ṭoḍara's *Āyurvedasaṃkhyā*,<sup>792</sup> Trimalla's *Bṛhadhyogatarāṅgiṇī*,<sup>793</sup> Ugrāditya's *Kalyāṇakāraka*,<sup>794</sup> Vāgbhaṭa's *Aṣṭāṅgasamgraha*,<sup>795</sup> Vāṅsena's *Cikitsāsārasaṃgraha*,<sup>796</sup> and the *Vīrasīmhāvaloka*.<sup>797</sup>

Formulae attributed to Nārada, in particular rasayogas, are found in many more treatises.<sup>797</sup> It is noteworthy that these formulae aim for the greater part at rasāyana and vājīkaraṇa purposes.

NIMI,<sup>798</sup> said to be a king of Videha, takes part in the discussion on the number of tastes in the *Carakasamhitā* (Sū.26.4 and 8); he proclaims that seven tastes should be distinguished, the six usual ones, and kṣāra, the taste of alkaline fluids.<sup>799</sup> In the *Kāśyāpasamhitā* (Sū.27.3), Nimi Vaideha represents the view that diseases are of eight types: the seven caused by one, two or three doṣas, and, added to these, a type of exogenous (āgantū) origin. The *Aṣṭāṅgasamgraha* (Sū.1.4–10) mentions Nimi among the sages who received the āyurveda directly from Indra. Ḍaḷhaṇa states (ad Su.Sū.1.3) that he is reckoned by some among the twelve disciples of Dhanvantari. Hemādri's *Lakṣaṇaprakāśa* refers to him as one of the originators of āyurveda.<sup>800</sup>

Nimi is well known in Indian literature.<sup>801</sup> According to an interesting tale he abandoned his body,<sup>802</sup> and was, in conformity with his desire, placed by the gods in the eyes of all living creatures, in consequence of which their eyes are blinking.<sup>803</sup> Nimi, king of Videha, is also the central figure in one of the Jātakas.<sup>804</sup> The medical tradition regards Nimi as an outstanding ophthalmologist.<sup>805</sup> Nimi's son, Karāla, specialized in the same branch of medicine as his father.<sup>806</sup>

. Being a king of Videha, Nimi is frequently referred to as the king of Videha,<sup>807</sup> or,

shortly, Videha.<sup>808</sup> Another medical authority, also called the king of Videha, is Janaka, which results in ambiguity when no proper name is added.<sup>809</sup> Close study of the quotations from Janaka, Nimi and Videha shows that Nimi and Videha can usually be regarded as identical, Janaka being meant only sporadically. A number of quotations and references are indiscriminately attributed to Nimi or Videha and differences of opinion between them do not occur. G. Mukhopadhyaya's suggestion<sup>810</sup> that Janaka, Nimi and Videha may be identical, since Janaka was a family name employed by several kings of Videha, is not supported by evidence. On the contrary, Hemādri's *Lakṣaṇaprakāśa* enumerates both Janaka and Nimi among the originators of āyurveda. An unsolved problem is that Videha is said to be Janaka's son in Candratā's commentary on the *Cikitsākalikā*,<sup>811</sup> whereas the reverse is found in the purāṇic stories.<sup>812</sup>

The Indian tradition regards Nimi, (king of) Videha, as the author of a treatise on śālākya and in particular as an authority on eye diseases.<sup>813</sup> The lists of authors of a lost śālākya tantra record, however, treatises on the subject by Nimi and Videha,<sup>814</sup> which can only be explained by assuming that the latter is thought to be the same as Janaka.<sup>815</sup>

The title of the treatise by Nimi/Videha may have been *Catūṣṣaṣṭi*.<sup>816</sup>

The quotations from and references to Nimi/Videha indicate that his work,<sup>817</sup> written in verse,<sup>818</sup> dealt in particular with the whole range of diseases belonging to the division of āyurveda called śālākya, and show that its author was held in high esteem as an oculist.<sup>819</sup> The evidence available reveals that it may have been similar to the *Suśrutasamhitā* in covering many aspects of medicine, but with an emphasis on śālākya, in the same way as the *Suśrutasamhitā* emphasizes śalya. A not inconsiderable number of quotations are concerned with general aspects of medicine, technical rules relating to the preparation of medicines, the properties of drugs, and diseases outside the range of śālākya. Works quoted as *Mahāvīdeha* and *Rājavīdehiya* do not show features that differentiate them from Nimi/Videha and his treatise. The quotations from *Vṛddhavidēha* by Anantakumāra deal with diseases belonging to kāyacikitsā and kaumārabhṛtya.

Authors and works quoting from or referring to Nimi are:<sup>820</sup> Āḍhamalla,<sup>821</sup> Aruṇadatta,<sup>822</sup> the Bower MS,<sup>823</sup> Candratā,<sup>824</sup> Ḍalhaṇa,<sup>825</sup> Indu,<sup>826</sup> the *Kairālī* commentary on the *Aṣṭāṅgahr̥dayasamhitā*,<sup>827</sup> Kālidāsa,<sup>828</sup> Kṣīrasvāmin,<sup>829</sup> Narasiṃha in his commentary on the *Mādhavanidāna*, Narasiṃha in his commentary on the *Rasavaiśeṣikasūtra*,<sup>830</sup> Niścalakara,<sup>831</sup> Parameśvara,<sup>832</sup> the *Sahasrayoga*,<sup>833</sup> Śivadāsasena,<sup>834</sup> Somadeva in his *Yāśastilaka*,<sup>835</sup> Śrīdāsapaṇḍita,<sup>836</sup> Śrīkaṇṭhadatta,<sup>837</sup> Śrīnāthapaṇḍita,<sup>838</sup> Vācaspati,<sup>839</sup> Vāgbhaṭa,<sup>840</sup> and the *Yogaratanākara*.<sup>841</sup> Nimi is also quoted by the unknown author of the interpolated portions of Niścalakara's *Ratnaprabhā*.<sup>842</sup>

Videha is mentioned in the *Suśrutasamhitā*<sup>843</sup> and in Vāgbhaṭa's works.<sup>844</sup>

Authors and works quoting from or referring to Videha<sup>845</sup> are: Āḍhamalla,<sup>846</sup> Anantakumāra,<sup>847</sup> the *Āyurvedābdhisāra* and its commentary,<sup>848</sup> Bhāvamiśra,<sup>849</sup> Binod Lal Sen,<sup>850</sup> Cakrapāṇidatta,<sup>851</sup> Candratā,<sup>852</sup> Ḍalhaṇa,<sup>853</sup> Gadādhara,<sup>854</sup> Gaṅgādhara,<sup>855</sup> Gayadāsa,<sup>856</sup> Hemādri,<sup>857</sup> Jejjāta,<sup>858</sup> Nāganātha in his *Nidānapradīpa*, Narasiṃha in his commentary on the *Mādhavanidāna*, Niścalakara,<sup>859</sup> Satyadeva Vāsiṣṭha,<sup>860</sup> Śivadāsasena,<sup>861</sup> Soḍhala,<sup>862</sup> Śrīkaṇṭhadatta,<sup>863</sup> Tīsaṭa,<sup>864</sup> Ṭoḍara,<sup>865</sup>

Trimalla,<sup>866</sup> Vācaspati,<sup>867</sup> Vaṅgasena,<sup>868</sup> Vijayarakṣita,<sup>869</sup> and the *Yogarātnākara*.<sup>870</sup> Videha is also quoted by the unknown author of the interpolated portions of Niścalkara's *Ratnaprabhā*.<sup>871</sup>

Some quotations are ascribed to Nimi in one source, to Videha in another.<sup>872</sup>

Vaideha is mentioned in a gloss on the *Bhāvaprakāśa*,<sup>873</sup> by Cakrapāṇidatta,<sup>874</sup> the *Kairālī* commentary on the *Aṣṭāṅgaḥṛdayasamhitā*,<sup>875</sup> the *Mādhavaḍṛavyaḡaṇa*,<sup>876</sup> the *Rasakāmadhenu*,<sup>877</sup> and by Vaṅgasena.<sup>878</sup> Treatises called *Vaidehīya* and *Rājajavaidehīya*, as well as a work called *Vṛddhavaideha*, are quoted by Anantakumāra.<sup>879</sup> The *Vaidehīya* is also quoted in the *Bhesajjamañjūsāsanaya*. *Vṛddhavaideha* is cited by Candrāṭa and Niścalka,<sup>880</sup> *Mahāvideha* by Śrīkaṇṭhadatta.<sup>881</sup>

An authority called Buddhavaideha is quoted in the *Bhesajjamañjūsāsanaya*.

A *Vaidehasamhitā* by Skandarakṣita is quoted by Indu in his commentary on the *Aṣṭāṅgaḥṛdaya*.<sup>882</sup> An identical quotation, said to be from the *Vaidehisamhitā*, is found in his *Saśilekhā* on the *Aṣṭāṅgasamgraha*<sup>883</sup> and in Śrīdāsa's *Ḥṛdayabodhikā*.<sup>884</sup>

Videha's work was one of the sources of Cakrapāṇidatta's *Cikitsāsamgraha*.<sup>885</sup>

Remarkable features of the quotations are: some quotations are common to Videha and Caḡṣuṣeṇa (or Caḡṣuṣya),<sup>886</sup> another one consists of a verse found in the *Carakasamhitā*;<sup>887</sup> Nala is referred to as an earlier authority,<sup>888</sup> Gayadāsa is said to agree with Videha,<sup>889</sup> as well as Sātyaki;<sup>890</sup> one quotation is common to Videha and Gadādhara;<sup>891</sup> the latter was acquainted with Videha's treatise;<sup>892</sup> Brahmadeva was also acquainted with Videha's work.<sup>893</sup>

Contributions of Nimi/Videha to medicine are: the view that vāyu is one, but has five different names according to its seat and actions;<sup>894</sup> the description of a type of unṁāda caused by a brahmarākṣasa;<sup>895</sup> the enumeration of seventy-six eye diseases<sup>896</sup> and sixty-four diseases of mouth and throat;<sup>897</sup> the description of a type of sarvasara (a disease of the whole oral cavity) caused by blood and called mukhapāka;<sup>898</sup> specification of the doṣas involved in a particular disease;<sup>899</sup> the recognition of blood as a causative factor on an equal footing with the doṣas;<sup>900</sup> the statement that baldness (khaliti) does not occur in women;<sup>901</sup> the enumeration of the complications of karṇaśūla;<sup>902</sup> a different aetiology of apīnasa;<sup>903</sup> the enumeration of the complications of pratiśyāya;<sup>904</sup> the description of a seventh type of arbuda of the nose;<sup>905</sup> the description of a second type of hatādhimanthā, called akṣiṣoṣa;<sup>906</sup> the use of the term pilla as a synonym of aklinnavartman;<sup>907</sup> the description of nirneṣa<sup>908</sup> and raktārṣas<sup>909</sup> as incurable diseases; the description of sūryāvartaviparyaya as a variety of sūryāvarta<sup>910</sup> and of anantavāta as a disease of the head;<sup>911</sup> the description of amlapitta as a distinct nosological entity, identical with śītapitta.<sup>912</sup>

PAINGI<sup>913</sup> is one of the sages taking part in the meeting described at the beginning of the *Carakasamhitā*. He is not mentioned in the corresponding description of this assembly in the first chapter of the *Bhāvaprakāśa*.

PARĀŚARA<sup>914</sup> is one of Ātreya's six disciples who wrote a medical treatise (tantra), based on Ātreya's teachings (Ca.Sū.1.30–35). A number of medical texts and commentaries mention his forming part of this group of authors.<sup>915</sup> The venerable status

of Parāśara appears from the rather frequent occurrence of his name when series of ancient authorities are enumerated.<sup>916</sup> The Bower MS (I.8) refers to him as a member of a group of sages interested in medicinal plants. Hemādri considers him to be one of the eighteen originators of āyurveda.<sup>917</sup> The *Bṛhannighaṇṭurātṇākara* refers to him as one of the authors of an āyurvedic samhitā.<sup>918</sup> A MS of the *Ātreyaśamhitā*, probably containing some version of the *Hārītasamhitā*, mentions a medical treatise called *Parāśari*.<sup>919</sup>

Parāśara represents the view that the heart is the first part of the embryo to develop<sup>920</sup> in the *Bhelasamhitā* (Sā.4.30), whereas the *Suśrutasaṃhitā* (Sā.3.32) states that this part is the navel according to Pārāśarya.<sup>921</sup> The *Kāśyapaśamhitā* shows Pārāśarya as taking part in discussions on the application of clysters in the treatment of children (Si.1) and on the various dosages of an emetic (Si.3). Parāśara is mentioned as a medical author in a *Kāśyapaśamhitā*.<sup>922</sup>

The Tibetan tradition is also acquainted with Parāśara as a medical authority, called Rċibs-logs skyes<sup>923</sup> or Rċibs-sogs skyes.<sup>924</sup>

Parāśara's name is also met with in connection with veterinary medicine, agriculture, vāstuśāstra, astronomy-astrology, omīna,<sup>925</sup> dharmasāstra, and arthasāstra.<sup>926</sup> In Pālakāpya's *Hastyāyurveda* (I.1) he is one of the sages at Romapāda's court who are eager to be instructed in elephantology. Varāhamihira mentions him on diverse subjects in his *Bṛhatsamhitā* and *Bṛhajjātaka*.<sup>927</sup> The commentator on the *Bṛhatsamhitā*, Bhaṭṭotpala, quotes him profusely, amongst other things on the characteristics of cattle, horses, and elephants.<sup>928</sup> Bhoja's *Yuktikalpataru* cites him in its sections on vāstuśāstra and horses.<sup>929</sup>

A manual of husbandry, called *Kṛṣipaddhati*,<sup>930</sup> and one on horticulture,<sup>931</sup> are ascribed to Parāśara, as well as works on astronomy-astrology<sup>932</sup> and a smṛti.<sup>933</sup> The *Arthasāstra* mentions the Pārāśaras, a school that followed Parāśara's views.<sup>934</sup> Pāṇini attributes a *Bhikṣusūtra* to Pārāśarya.<sup>935</sup>

Parāśara is well known from Vedic literature, the epics, the Purāṇas, etc.<sup>936</sup> According to the *Nirukta* he was a son of Vasiṣṭha, but the *Mahābhārata* and *Viṣṇupurāṇa* make him his grandson.<sup>937</sup> His son, Kṛṣṇadvaipāyana Vyāsa is sometimes called Pārāśarya.<sup>938</sup>

A medical treatise ascribed to Parāśara is a *Takṛavidhi*, also called *Takṛakalpa*.<sup>939</sup>

Authors and works quoting from or referring to Parāśara<sup>940</sup> are: Āḥamalla,<sup>941</sup> Ananta in his *Pratāpakalpadruma*, Anantakumāra,<sup>942</sup> Aruṇadatta,<sup>943</sup> the commentary on the *Āyurvedābhisāra*,<sup>944</sup> the *Basavarājīya*,<sup>945</sup> Bhoja,<sup>946</sup> Cakrapāṇidatta,<sup>947</sup> Candrāta,<sup>948</sup> Dalhaṇa,<sup>949</sup> Dattarāma in the *Bṛhannighaṇṭurātṇākara*,<sup>950</sup> Dhanyantari's *Cikitsākalikā*, Gaṅgādhara,<sup>951</sup> Gopālādāsa in his *Cikitsāsmṛta*, the *Haṃsarājaniḍāna*, Hārīṇacandra,<sup>952</sup> Hemādri,<sup>953</sup> the *Hārītasamhitā*,<sup>954</sup> Indu,<sup>955</sup> Jayaratna in his *Jvaraparājaya*, Jejjāta,<sup>956</sup> Jivānanda Vidyāsāgara,<sup>957</sup> the *Jvaracikitsita*, Kaiyadeva,<sup>958</sup> Kaṇāda in his *Nāḍīvijñāna*, Lakṣmaṇa Paṇḍita in his *Yogacandrikā*, Mādhava in his *Mādhavadravayaguṇa*,<sup>959</sup> Māṇikyacandra's *Rasāvatāra*,<sup>960</sup> Moreśvara,<sup>961</sup> Narahari in his *Vāgbhaṭamanḍana*,<sup>962</sup> Nārāyaṇabhūpati's *Nārāyaṇavilāsa*,<sup>963</sup> Nīlamegha,<sup>964</sup> Nīścalakara,<sup>965</sup> Raghunāthaprasāda,<sup>966</sup> Saṃkara,<sup>967</sup> Śivādāsasena,<sup>968</sup> Śrīdāsapaṇḍita,<sup>969</sup> Śrīkaṇṭhadatta,<sup>970</sup> Tisaṭa,<sup>971</sup> Ṭoḍara,<sup>972</sup> Ugrāditya,<sup>973</sup> Vācaspati,<sup>974</sup> Vāgbha-

ṭa,<sup>975</sup> the *Vaidyacentāmaṇi*,<sup>976</sup> *Vijayarakṣita*,<sup>977</sup> and *Vṛnda*.<sup>978</sup>

*Vṛddhapaṛāśara* is quoted in the *Āyurvedābhisāra*<sup>979</sup> and *Vīrasimhāvaloka*.<sup>980</sup>

The quotations show that Parāśara's tantra dealt with many aspects of medicine: basic principles, *dravyaguṇa*,<sup>981</sup> embryology and anatomy, the aetiology, symptomatology and therapy of diseases belonging to the division of *kāyacikitsā*, and *pañcakarmman*.

Contributions of Parāśara to medicine are: a definition of the term *pūrvārūpa* (prodrome);<sup>982</sup> the view that one day is required for the transformation of a *dhātu* into the next one of the series;<sup>983</sup> a definition of *ojas*;<sup>984</sup> an aberrant view of *vipāka*;<sup>985</sup> the statement that the hairs of the human body are three *koti* and a half in number;<sup>986</sup> statements about the development of the foetus;<sup>987</sup> a description of the fever called *caturthakaviparyaya*;<sup>988</sup> a description of the disease called *pravāhikā*, its designation as *antargranthi*, and a reference to another authority (i.e., *Hārīta*, who calls it *nīścāraka*);<sup>989</sup> a statement about the quantity of a *nirūha* clyster to be given to particular patients.<sup>990</sup>

*PĀRĪKṢĪ*<sup>991</sup> is one of the sages enumerated in the first chapter of the *Carakasaṃhitā*. The corresponding part of the first chapter of the *Bhāvaprakāśa* calls him *Parīkṣaka*. He takes part in the discussion on the origin of the individual and his diseases in the *Carakasaṃhitā* (Sū.25.8–9). *Garigādhara*<sup>992</sup> regards *Pārīkṣi* as a son of *Ātreya*, *G. Hāldār*<sup>993</sup> as the king of a city called *Āśīndavant*. *Pūrṇākṣa Maudgalya*, mentioned in another chapter of the *Carakasaṃhitā*, may or may not be the same as *Pārīkṣi Maudgalya*.<sup>994</sup>

*PULASTYA*<sup>995</sup> is a member of the group of sages described at the beginning of the *Carakasaṃhitā*. His name is found in the same context in the first chapter of the *Bhāvaprakāśa*. The *Carakasaṃhitā* mentions him again as one of the sages who go to *Indra* for help when their health has declined (Ci.1<sup>4</sup>.3). *Pulastya* is met with a third time in the *Carakasaṃhitā* when a number of sages discuss which fruit is the best for use in a non-oleaginous enema (*āsthāpana*), but his own opinion on this issue is not recorded (Si.11.3–4).

*Pulastya* is referred to in *Pālākāpya's Hastyāyurveda* as one of the sages assembled at *Romapāda's* court who want to be instructed in elephantology.

*Pulastya* is known as a medical authority in the Tibetan tradition.<sup>996</sup>

The Tamil medical tradition regards him as one of the eighteen *Siddhas*.<sup>997</sup>

*Pulastya* is one of the *Prajāpatīs* (*Manusmṛti* 1.33–34) and one of the seven sages; he is well known in the epics and *Purāṇas*.<sup>998</sup> He is said to be one of the originators of astronomy-astrology.<sup>999</sup> The *Śivatattvaratnākara* refers to him on the subject of averting strokes of lightning.<sup>1000</sup> Verses from a *Pulastyasmṛti* are quoted in works on *dharmaśāstra*.<sup>1001</sup> One such verse is found in *Yogīndranāthasena's* commentary on the *Carakasaṃhitā*.<sup>1002</sup>

*PŪRNĀKṢA MAUDGALYA*<sup>1003</sup> is in the *Carakasaṃhitā* one of the sages who, meeting in the *Caitraratha* forest, deliberate on the number of tastes. In this discussion he brings forward that three tastes should be distinguished, namely eliminating (*chedanī-*

ya), pacifying (upaśamanīya), and intermediate between the two (sādhāraṇa) (Sū.26.3 and 8).<sup>1004</sup> In this way he adds one taste, the intermediate one, to the two recognized by Śakunteya. Pūrṇākṣa Maudgalya is sometimes considered to be the same as Pārīkṣi Maudgalya.<sup>1005</sup>

ŚĀKUNEYA<sup>1006</sup> is one of the sages of the assembly described at the beginning of the *Carakasamhitā*. He is also mentioned in the first chapter of the *Bhāvaprakāśa*.<sup>1007</sup>

ŚĀKUNTEYA<sup>1008</sup> is a brāhmaṇa who takes part in the discussion of the *Carakasamhitā* on the number of tastes. According to his view, two tastes should be distinguished, an eliminating (chedanīya) and a pacifying one (upaśamanīya) (Ca.Sū.26.3 and 8).<sup>1009</sup>

SĀṂKHYA<sup>1010</sup> is a sage taking part in the meeting described at the beginning of the *Carakasamhitā*. He is also mentioned in the corresponding part of the first chapter of the *Bhāvaprakāśa*. Gaṅgādhara regards Sāṃkhya as an epithet of Gautama, who precedes Sāṃkhya in the list, claiming that this epithet distinguishes this Gautama from the founder of Buddhism.<sup>1011</sup>

SĀṂKṚTYA<sup>1012</sup> forms part of the group of sages mentioned in the first chapter of the *Carakasamhitā*. He is referred to in the same context in the first chapter of the *Bhāvaprakāśa*.

ŚĀṆḌĪLYA<sup>1013</sup> is a member of the group of sages described in the first chapter of the *Carakasamhitā*. He is also mentioned in the first chapter of the *Bhāvaprakāśa*. Hemādri describes him in his *Lakṣaṇaprakāśa* as one of the originators of āyurveda.<sup>1014</sup>

Śāṇḍilya is the name of an authority known from Vedic literature. His name is also connected with the Pāñcarātra-system and he is the reputed author of the *Bhaktisūtra*.<sup>1015</sup>

The formula of śāṅkhacūrṇa is ascribed to Śāṇḍilya.<sup>1016</sup>

ŚĀRALOMAN<sup>1017</sup> takes part in the meeting of sages described in the first chapter of the *Carakasamhitā*. He is also mentioned in the corresponding part of the first chapter of the *Bhāvaprakāśa*. In the chapter of the *Carakasamhitā* on the origin of the individual he expresses the view that the mind (manas), or sattva, full of rajas and tamas, is at the origin of one's body and its diseases (Sū.25.10).

ŚĀRKARĀKṢA<sup>1018</sup> is present at the meeting of sages described in the first chapter of the *Carakasamhitā*. He is absent from the list in the first chapter of the *Bhāvaprakāśa*. Someone called Jana Śārkarākṣya is mentioned in the *Chāndogyopaniṣad* (5.11.1).

ŚĀUNAKA: see Bhadrāśaunaka.

VAIJAVĀPI<sup>1019</sup> is a member of the assembly of sages described in the first chapter of the *Carakasamhitā*. His name is Vajjavāpa in the first chapter of the *Bhāvaprakāśa*. A *Vaijavāpagrhyasūtra* is known from quotations.<sup>1020</sup>



VĀMADEVA<sup>1021</sup> is a sage present at the assembly described in the first chapter of the *Carakasaṃhitā*. His name is found in the same context in the first chapter of the *Bhāvaprakāśa*. The *Carakasaṃhitā* mentions him again as one of the sages who approach Indra for relief when their health has declined (Ci.14.3). Hemādri's *Lakṣaṇaprakāśa* refers to Vāmadeva as one of the originators of āyurveda.<sup>1022</sup>

Vāmadeva is known from Vedic literature, dharmaśāstra,<sup>1023</sup> the epics, and the Purāṇas.<sup>1024</sup>

Vāmadeva is quoted as a commentator in the *Kairālī* commentary on the Ut-tarasthāna of the *Aṣṭāṅgahṛdayasaṃhitā*<sup>1025</sup> and in Śrīdāsapaṇḍita's commentary on that work.<sup>1026</sup>

A formula attributed to Vāmadeva is found in Soḍhala's *Gādanigraha*.<sup>1027</sup>

VĀMAKA<sup>1028</sup> appears twice in the *Carakasaṃhitā*. He initiates the discussion on the origin of the individual (Sū.25.3–7) and asks Ātreya in the same chapter which are the causes of a person's growth when healthy, and decline when suffering from disease (Sū.25.30). In both passages he is said to be a king of Kāśi.

Vāmaka also takes part in the deliberations on the choice of the best fruit for use in a non-oleaginous enema and says that in his opinion kaṭutumba<sup>1029</sup> should be chosen. G. Hāldār regards Vāmaka as a forefather of Divodāsa Dhanvantari and as the author of the *Cikitsākaumudī*.<sup>1030</sup> P. Cordier mentions that Vāmaka, together with Bharadvāja, is referred to in the *Mahāvagga*.<sup>1031</sup>

VĀRKṢI<sup>1032</sup> is a member of the group of sages described in the first chapter of the *Carakasaṃhitā*. His name is not found in the corresponding list of the first chapter of the *Bhāvaprakāśa*.

VĀRYOVIDA<sup>1033</sup> appears on three occasions in the *Carakasaṃhitā*, where he is called a royal sage or king. As a participant in the discussion on vāta, he describes its actions, when vitiated and not vitiated, inside and outside the body, and the relevance of this knowledge to medicine (Sū.12.8–10).<sup>1034</sup> He is present when a number of sages deliberate on the origin of the individual and his diseases; contradicting Śaraloman, he expresses as his opinion that living beings and their disorders are the product of rasa, because the element water as the cause of its manifestation is endowed with rasa (Sū. 25.12–13). He is also a member of the group of sages who, assembled in the Caitraratha forest, converse about the number of tastes (Sū.26.3–7); Vāryovida is convinced that six tastes should be distinguished (Sū.26.8): heavy (guru), light (laghu), cold (śīta), hot (uṣṇa), oleaginous (snigdha), and dry (rūkṣa).

Vāryovida is known to the *Kāśyapasaṃhitā* as well. He is said to recognize two chief categories of disease (Sū.27.3): endogenous (nija) and exogenous (āgantū). He gives his view in the chapter on the treatment of children by means of emetics and purgatives (Si.3), but the pertinent passage has not been preserved. The chapter on the treatment of kukkuṇaka and other children's diseases (Khi.13) consists of teachings by Kaśyapa to king Vāryovida. The same applies to the chapter on the treatment of pregnant women (antarvatnīcikitsā) where, to be sure, he is not mentioned by name,

but a king is addressed who cannot be but Vāryovida.<sup>1035</sup> The last chapter of the *Kāśyapasaṃhitā* (Kḥi.25: deśasātmayādhyāya) consists of an exposition by a king of Kāśī, who must be Vāryovida again; answering a question put by Kāśyapa, he describes which kinds of foods are suitable to the inhabitants of particular countries.

VASIṢṬHA<sup>1036</sup> is a member of the group of sages described in the first chapter of the *Carakasamhitā*. He is mentioned in the same context in the first chapter of the *Bhāvaprakāśa*, and, in a comparable situation, in the Bower MS (I.8). The *Carakasamhitā* refers to him as one of the sages who became free from disease and decrepitude through the use of a particular rasāyana (Ci.1<sup>3</sup>.4–6); he also belongs to those who approached Indra for help in improving their declined health (Ci.1<sup>4</sup>.3). The *Kāśyapasaṃhitā* (Vi.1) relates that Indra bestowed the āyurveda on Kāśyapa, Vasiṣṭha, Atri, and Bhṛgu. The *Suśrutasamhitā* (Ka.8.90–93) and *Aṣṭāṅgasamgraha* (U.44.2) refer to the story about the enmity between Vasiṣṭha and Viśvāmitra, tracing the origin of spiders (lūtā) to drops of sweat that fell from the forehead of the infuriated Vasiṣṭha.

Hemādri's *Lakṣaṇaprakāśa* mentions Vasiṣṭha as one of the originators of āyurveda.<sup>1037</sup> An unspecified *Kāśyapasaṃhitā* considers him to belong to a group of eight ancient medical authors.<sup>1038</sup> The Indian tradition regards him as the author of a lost rasāyanatantra.<sup>1039</sup> A medical text, called *Vasiṣṭhakalpa*, is known from the list of Kavīndrācārya's books.<sup>1040</sup> Vasiṣṭha is the pupil of the alchemist Māṇḍavya in the *Rasendramāṅgala*. An anonymous medical text, called *Rudantikalpa*, is in the form of a dialogue between Vasiṣṭha and Agastya.

The Tibetan tradition is acquainted with Vasiṣṭha as a medical authority.<sup>1041</sup>

Pālakāpya's *Hastayāurveda* knows Vasiṣṭha as one of the sages who were eager to be instructed in the science of elephantology (I.1); the same treatise states that Vasiṣṭha protected animals from poison (II.11.23).

Vasiṣṭha is well known in Indian literature.<sup>1042</sup> Many Vedic hymns are ascribed to him<sup>1043</sup> and numerous stories are found in the epics and the Purāṇas. Vasiṣṭha is counted as one of the seven brahmaṛṣis<sup>1044</sup> and one of the ten Prajāpatīs.<sup>1045</sup> He also figures in texts on Yoga<sup>1046</sup> and in Tantric literature.<sup>1047</sup>

Sciences with which Vasiṣṭha's name is associated, apart from medicine, are dharmasāstra,<sup>1048</sup> jyotiṣa,<sup>1049</sup> vāstusāstra,<sup>1050</sup> and dhanurveda.<sup>1051</sup>

Vasiṣṭha is quoted or referred to, apart from the works already mentioned, in the commentary on the *Āyurvedābhisāra*,<sup>1052</sup> Bindu's *Rasapaddhati*,<sup>1053</sup> Hārāṇacandra's commentary on the *Suśrutasamhitā*,<sup>1054</sup> Kapilamiśra's *Nāṭīprabodhana*, Lakṣmīrāma's commentary on the *Siddhabheṣajamaṇimālā*,<sup>1055</sup> the *Nāṭīśāstrasamgraha*,<sup>1056</sup> Niścalakara's *Ratnaprabhā*,<sup>1057</sup> the *Rasaratnadīpikā*,<sup>1058</sup> *Rasendracintāmaṇi*,<sup>1059</sup> *Rasendramāṅgala*, *Ratnākaraśādhayograntha*, Revāṇasiddha's *Virabhātīya*, Soḍhala's *Gadanigraha*,<sup>1060</sup> the *Tāmbūlakalpasamgraha*, Ṭoḍara's *Āyurvedasaukhyā*,<sup>1061</sup> Trimalla's *Brhadyogatarāṅgiṇī*,<sup>1062</sup> Vāgbhata's works,<sup>1063</sup> the *Vaidyacināmaṇi*,<sup>1064</sup> and Vaṅgasena's *Cikitsāsārasamgraha*.<sup>1065</sup> A work called *Vṛddhavasīṣṭha* is quoted in the *Tāmbūlakalpasamgraha*.

The quotations show that Vasiṣṭha's work was not restricted to the subject of rasāyana.

VIDEHA: see Nimi.

VIŚVĀMITRA<sup>1066</sup> is one of the members of the assembly of sages described in the first chapter of the *Carakasaṃhitā*. He is referred to in the same context in the first chapter of the *Bhāvaprakāśa*. The *Suśrutasamhitā* mentions him on two occasions (Ci.2.3; U. 66.3–4ab) as the father of Suśruta; the latter is also called Vaiśvāmītra (U.18.3) and the son of the brahmaṛṣi, i.e., Viśvāmītra (Ni.7.3).<sup>1067</sup> The *Suśrutasamhitā* also alludes to the well-known quarrel between Vaiśiṣṭha and Viśvāmītra (Ka.8.90–93),<sup>1068</sup> known to the *Aṣṭāṅgasamgraha* too (U.44.2). A medical treatise, called *Vaiśvāmītrī*, is mentioned in the introductory verses of a MS of the *Atreyaśamhitā*.<sup>1069</sup>

Hemādri's *Lakṣanaprakāśa* regards Viśvāmītra as one of the of the originators of āyurveda.<sup>1070</sup> The Indian tradition considers Viśvāmītra to be one of the authors of a lost tantra on kāyacikitsā.<sup>1071</sup> Pālakāpya's *Hastāyurveda* (I.1) relates that Viśvāmītra was among the sages at Romapāda's court who were desirous of being instructed in elephantatology.

Besides medicine, Viśvāmītra's name is associated with dharmaśāstra<sup>1072</sup> and dhanurveda.<sup>1073</sup>

Viśvāmītra is well known in Vedic literature, the epics, the Purāṇas, etc.<sup>1074</sup> One of the verses of a Vedic hymn, said to be curative of all diseases (RV 10.137), is ascribed to Viśvāmītra.<sup>1075</sup> Gayadāsa and Ḍalhaṇa, two commentators on the *Suśrutasamhitā*, refer to the story that Viśvāmītra, who was a ksatriya by birth, acquired the status of a brāhmaṇa by means of his austerities.<sup>1076</sup> Ḍalhaṇa calls him king of Gādhī,<sup>1077</sup> although, in later sources, he is usually said to be a son of Gādhī, king of Kānyakubja.<sup>1078</sup>

Some Indian authors distinguish a number of different Viśvāmītras. Their number is three according to Gaṇanāthasena: (1) the Viśvāmītra of the *Rāmāyaṇa*, who lived in the Tretāyuga; (2) the one of the *Mahābhārata*, mentioned in the story about Hariścandra; this Viśvāmītra was the father of Suśruta and figures in the *Carakasaṃhitā*; he lived in the Dvāparayuga; (3) the medical authority Viśvāmītra.<sup>1079</sup>

Authors and works quoting from or referring to Viśvāmītra are:<sup>1080</sup> the *Arkaprakāśa*,<sup>1081</sup> *Āyurvedābdhisāra*, *Bhāvaprakāśa*,<sup>1082</sup> the Bower MS,<sup>1083</sup> Cakrapāṇidatta,<sup>1084</sup> Candrāṭa,<sup>1085</sup> Ḍalhaṇa,<sup>1086</sup> Gayadāsa,<sup>1087</sup> Guḷrāṣarmamiśra in his *Viśikhānupraveśa-vijñāna*, Hemādri,<sup>1088</sup> Indu,<sup>1089</sup> Jñānacandra,<sup>1090</sup> the *Kāmaratna*,<sup>1091</sup> Niścalakara,<sup>1092</sup> Nityanātha's *Rasaratnākara*,<sup>1093</sup> the *Paribhāṣāpradīpa*, the *Rasakāmadhenu*,<sup>1094</sup> Śivādāsasena,<sup>1095</sup> Śrīdāsapaṇḍita,<sup>1096</sup> Śrīkaṇṭhadatta,<sup>1097</sup> Tṭṭṭara,<sup>1098</sup> Ugrāditya,<sup>1099</sup> Vāṅgasena,<sup>1100</sup> and the *Yogarātñākara*.<sup>1101</sup>

The quotations show that Viśvāmītra's work dealt with many aspects of medicine.

## Chapter 15

### Commentaries on the *Carakasamhitā*

AGNIVEŚĀ<sup>1</sup> is credited with a commentary on the *Carakasamhitā* by C.G. Kashikar.<sup>2</sup> This claim is very implausible.

AMARAKARA is regarded as a commentator on the *Carakasamhitā* by P. Cordier.<sup>3</sup>

AMITAPRABHA<sup>4</sup> wrote a commentary, called *Carakanyāsa*,<sup>5</sup> on the *Carakasamhitā*. Nīścalakara quotes in his *Ratnaprabhā* on the *Cakradatta* from Amitaprabha's *Carakanyāsa*, which, as appears from one of the quoted passages,<sup>6</sup> covered the whole of the *Carakasamhitā* as redacted by Dṛḍhabala. Amitaprabha refers to predecessors (pūrvācāryāḥ) and to particular schools of interpretation of the *Carakasamhitā*, such as the Dākṣiṇātyas (the Southerners), Maitreyas, Paitāmahas, Udīcyas (the Northerners), Vaiṣṇavas, and the followers of Vīravarmān.<sup>7</sup>

Some quotations from Amitaprabha in Nīścalakara's *Ratnaprabhā*, not explicitly said to be from the *Carakanyāsa*, are probably from this commentary.<sup>8</sup>

A *Carakanyāsa*, which is either Bhaṭṭārahariścandra's or Amitaprabha's commentary, is cited in Anantakumāra's *Yogarātnasamuccaya*.<sup>9</sup>

Amitaprabha also wrote a metrical treatise on therapy, used by Cakrapāṇidatta as one of his sources in compiling the *Cakradatta*.<sup>10</sup>

Dalhaṇa refers to a commentator (ṭīkākāra) Amitaprabha, who may be the author of the *Carakanyāsa*.<sup>11</sup> Amitaprabha/Amṛtaprabha is among the sources of Candrāṭa's *Yogarātnasamuccaya*. Gopāladāsa quotes him in his *Cikitsāmṛta*. An *Amita-* or *Amṛtaprabhīya* is cited in the *Bhesajjamañjūsāsannaya*.

Many quotations from the *Amitaprabhīya* are found in Anantakumāra's *Yogarātnasamuccaya*.<sup>12</sup> The *Amṛtaprabhīya*, also used by Anantakumāra,<sup>13</sup> is identical with the *Amitaprabhīya*, because one quotation from the former work is also found in the *Cakradatta* and attributed to Amitaprabha by Nīścala.<sup>14</sup>

Nīścala mentions, apart from the *Carakanyāsa*, one work of Amitaprabha by name, namely the *Cikitsātiśaya*. The quotations prove that it was a treatise in verse.<sup>15</sup>

A *Yogaśataka*, as well as a commentary on the *Yogaśataka* ascribed to Nāgārjuna, are also recorded as works of Amitaprabha or Amṛtaprabha.<sup>16</sup>

Nīścala, who mentions in one place three authorities, namely Dṛḍhabala, Amitaprabha, and Jejjāta,<sup>17</sup> may have placed them in chronological order.<sup>18</sup> However that may be, Amitaprabha is in any case later than Dṛḍhabala, because he commented on Dṛḍhabala's version of the *Carakasamhitā* and is said to agree with him by Nīścala;

he is anterior to Vṛnda, who incorporated verses from Amitaprabha's work in his *Siddhayoga*, and Candrāṭa, who quotes him.<sup>19</sup>

ANĠIRI<sup>20</sup> is a commentator on the *Carakasamhitā*, quoted by Cakrapāṇidatta in his *Āyurvedadīpikā* (ad Ca.Si.1.20–22ab).

Anḡiri is an early commentator,<sup>21</sup> sometimes assigned to the tenth century.<sup>22</sup>

ARUNADATTA<sup>23</sup> is sometimes regarded as a commentator on the *Carakasamhitā*.<sup>24</sup>

ĀṢĀDHAVARMAN<sup>25</sup> is a commentator, quoted by Jejjāṭa,<sup>26</sup> Cakrapāṇidatta in his *Āyurvedadīpikā*,<sup>27</sup> Niścalakara,<sup>28</sup> and Vijayarakṣita.<sup>29</sup> These quotations indicate that he commented on the whole of the *Carakasamhitā*.<sup>30</sup> The name of his commentary was probably *Parihāravārttika*.<sup>31</sup>

Āṣādhavarman is placed in the eighth<sup>32</sup> or ninth century,<sup>33</sup> but is probably earlier on account of the date of Jejjāṭa, who quotes him.

BAKULA, also called Bakulakara, Bakulamiśra,<sup>34</sup> and Vakula,<sup>35</sup> wrote one or more commentaries and a medical work in verse.

He is quoted or referred to in the *Bṛhannighaṇṭuratanākara*,<sup>36</sup> by Gopālādāsa in his *Cikitsāmrta*, Niścalakara,<sup>37</sup> Śivadāsasena,<sup>38</sup> Śrīkaṇṭhadatta,<sup>39</sup> Vācaspati,<sup>40</sup> and Vijayarakṣita,<sup>41</sup>

Bakula wrote a commentary<sup>42</sup> on the *Carakasamhitā*<sup>43</sup> and probably also one on the *Suśrutasaṃhitā*.<sup>44</sup>

A work in verse by Bakula is quoted by Niścala<sup>45</sup> and Śrīkaṇṭhadatta.<sup>46</sup> Niścala also mentions treatises by Bakula, called *Bakulatantra*<sup>47</sup> and *Sāroccaya*.<sup>48</sup>

The quotations from Bakula(kara) indicate that he is later than Jejjāṭa,<sup>49</sup> Gadādhara,<sup>50</sup> Kārttikakuṇḍa,<sup>51</sup> Govardhana,<sup>52</sup> the Cāndrikākāra,<sup>53</sup> Vṛnda,<sup>54</sup> Naradeva,<sup>55</sup> and Cakrapāṇidatta,<sup>56</sup> while Bakula is earlier than Vijayarakṣita and Śrīkaṇṭhadatta, who quote him.

Bakula may therefore have been either a contemporary of Cakrapāṇidatta or of a somewhat later date.<sup>57</sup>

D.Ch. Bhattacharyya and G. Hāldār regard him as a Bengali and assign him to the eleventh century.<sup>58</sup> A. Pandey and K. Raghunathan regard the ending –kara of Bakulakara's name as evidence supporting the view that he was a Bengali; these authors place him in the period between the first half of the eleventh and the first half of the twelfth century.<sup>59</sup> B. Tripāṭhī refers to him as a commentator of the thirteenth century.<sup>60</sup>

Niścala bestows some flowery laudatory epithets on Bakula; he is called anavadyavaidya, vividhavidvadvṛndāraka, and mahopādhyāya. D.Ch. Bhattacharyya<sup>61</sup> supposed Bakula to have been a close connection of Niścala, may be his own uncle (pitṛjyeṣṭha), who is once mentioned in the *Ratnaprabhā*;<sup>62</sup> P.V. Sharma regards this as very unlikely, on account of the gap of time between Bakula and Niścala.<sup>63</sup>

BHADRAVARMAN<sup>64</sup> is by some scholars regarded as a commentator on the *Carakasamhitā*.<sup>65</sup> He is quoted by Anantakumāra,<sup>66</sup> Cakrapāṇidatta,<sup>67</sup> Candrāṭa,<sup>68</sup> and Niścala.

lakara.<sup>69</sup>

Bhadravarman's work was one of the sources of Cakrapāṇi's *Cikitsāsāṃgraha*.<sup>70</sup> Vṛnda was already acquainted with Bhadravarman's treatise, as shown by verses that the *Siddhayoga* and *Cakradatta* have in common.<sup>71</sup>

P.V. Sharma regards Bhadravarman as belonging to the ninth century,<sup>72</sup> probably because Candraya borrowed from him.

BHĀSADATTA<sup>73</sup> is quoted by Cakrapāṇidatta (ad Ca.Ci.3.216–217)<sup>74</sup> as an early commentator on the *Carakasamhitā*. P.V. Sharma is of the opinion that he belongs to the tenth century;<sup>75</sup> B. Tripāthī assigns him to the eleventh century.<sup>76</sup>

BHAVYADATTA<sup>77</sup> was a commentator on the *Carakasamhitā* according to P.V. Sharma.<sup>78</sup>

Bhavya(datta) is quoted by Gopāladāsa in his *Cikitsāmṛta*, Nīścalakara,<sup>79</sup> and Śivādāsa.<sup>80</sup>

Some quotations may be from a commentary, but not clearly from a commentary on the *Carakasamhitā*.<sup>81</sup>

Works by Bhavya(datta), mentioned by Nīścala, are the *Vaidyapradīpa*, also called *Vaidyakapradīpasāṃgraha* and *Bhavyadattasāṃgraha*, and the *Yogarātnākara*.<sup>82</sup>

Bhavyadatta's *Vaidyapradīpa* was esteemed by Nīścala, who calls its author a prā-māṇikāgraṇī.<sup>83</sup> The author of the *Yogarātnākara* is referred to as a vidyāmahāvratā.<sup>84</sup>

Bhavyadatta's *Vaidyapradīpa* bases its text more than once on the works of Vāgbhaṭa.<sup>85</sup> Nīścala rather often mentions Bhavya(datta) in the company of Bakula.

P.V. Sharma assigns Bhavyadatta to the twelfth,<sup>86</sup> G. Hāldār to the eleventh century.<sup>87</sup>

BHĪMADANTA<sup>88</sup> was a commentator on the *Carakasamhitā*, as appears from a quotation in Cakrapāṇidatta's *Āyurvedadīpikā* (ad Ca.Ci.10.53).

The *Vyākhyākusumāvalī* (ad *Siddhayoga* 81.41) quotes him as Bhīmadatta. He lived in the tenth century according to P.V. Sharma,<sup>89</sup> in the eleventh century according to B. Tripāthī.<sup>90</sup>

BHOJA wrote a vṛtti on the *Carakasamhitā* according to the Gulabkunverba editors of this samhitā.<sup>91</sup>

BRAHMADEVA<sup>92</sup> is sometimes<sup>93</sup> regarded as a commentator on the *Carakasamhitā*, which may be right in spite of rather scanty evidence.<sup>94</sup>

CAKRAPĀNIDATTA<sup>95</sup> wrote a commentary on the *Carakasamhitā* that is called *Āyurvedadīpikā*.<sup>96</sup>

The following authors, works and schools are quoted or referred to in it: *Abhidhānaśāstra* (Śā.1.112),<sup>97</sup> Agastya (Sū.1.62–63ab), Agniveśa (Sū.2.17; Ci.3.197–200ab; Ci.4.62–72 and 88; Ci.7.60–64), *Agniveśasamhitā* (Ci.3.179cd–188ab), Aṅgiri (Si.1.20cd–22ab), Āśadhavarman (Ci.3.216–217; 23.137–139; Si.1.13cd–14ab and

25), *Aśvavaidyaka* (Sū.7.39–40), *Ātreya* (Ci.3.197–200ab), *bauddhāḥ* (Śā.1.46–47), *Bauddhasiddhānta* (Sū.8.12), *Bhadraśaunaka* (Si.1.20cd–22ab), *Bhālūkīya* (Ci.3.108), *Bharadvāja* (Si.1.3–6ab), *Bharata* (Ci.2<sup>1</sup>.9),<sup>98</sup> *Bhāsadatta* (Ci.3.216–217), *Bhaṭṭa* (Sū.30.84–85; Vi.8.42), *Bhaṭṭāraharicandra* (Sū.1.45; Si.12.41cd–45ab), *Bhela* (Ci.3.285cd–287ab), *Bhīmādanta* (Ci.10.53), *Bhoja* (Ci.5.158; 15.17 and 93; Ci.25.24–25; Si.1.20cd–22ab), *Brahmadeva* (Ci.3.216–217), *Cakṣuṣyena* (Ci.7.62–64), *Candrikā* (Sū.27.129; Ci.26.293), *Caraka* (Sū.11.25; Ci.3.160cd–161ab; Si.12.36cd–41ab), *carakasamśkāra* (Ci.6.5–6), *Dārūka* (Ci.3.197–200ab), *Dāruvāha* (Ci.3.74), *dhānvantarīyāḥ* (Ci.5.44), *Dṛdhabala* (Sū.7.45–50; Ci.14.234–242; Ka.12.87–97; Si.12.36cd–41ab), *gandhaśāstra* (Ci.28.155), *Haricandra* (Sū.7.46; Ci.3.179cd–188ab), *Hārīta* (Sū.1.30–31 and 68–74ab; 21.39–43; 26.25–26; 27.4, 114, 197, 213–216, 231–234ab, 237–238ab, 243–246, 338; 28.4; Ni.1.8; Śā.2.6–10; 8.5–8; 1.7.3; Ci.3.71–72, 138cd–139ab, 139cd–140ab, 149cd–155ab, 160cd–161ab, 161cd–163ab; Ci.8.145–148; 16.34–39ab; 17.141cd–144; 22.8; Si.1.20cd–22ab and 23cd–24; 3.12cd–13ab, 30cd–31ab and 31cd–33ab; 9.50cd–57), *Harivaṃśa* (Sū.1.2), *Hastivaidyaka* (Sū.6.9–18), *Hiranyākṣa* (Si.12.41cd–45ab), *Īśvarasena* (Ci.15.88–93; Si.1.20cd–22ab), *Jatūkarṇa* (Sū.1.2 and 44; 2.18–33; 4.12 and 17; 5.16–18ab, 49cd–51ab, 63cd–71ab; 7.61–62; 26.63 and 84; 27.197; Śā.4.24; 8.19, 47, 51, 55, 62; Ci.1<sup>1</sup>.41 and 77–80; 1<sup>2</sup>.16; 2<sup>2</sup>.3; 2<sup>3</sup>.3–5 and 15–17; 3.42–47ab, 74, 138cd–139ab, 197–200ab; 5.96 and 149–151; 7.60–64 and 136–139; 8.145–148; 9.42cd–44; 10.34–36; 11.25–26, 56–61, 66–69, 88–90, 91–92; 12.50–52; 13.112cd–116ab; 14.76–88 and 138–169; 15.82–86; 17.42–44; 19.82–84 and 104cd–113ab; 23.229–242ab; 26.73–75, 166–175, 221–230; 28.136cd–138ab, 138cd–142ab, 142cd–157ab; 29.49–60 and 123; Ka.4.7cd–9ab; 6.5cd–7 and 12cd; 8.11; 9.14–16; Si.1.20cd–22ab, 25, 47cd–49ab; 3.26cd, 27–30ab, 30cd–31ab; 9.12–15; 10.37–38ab), *Jejjāta* (Si.1.20cd–22ab), *jyotiṣa* (Sū.15.9), *Kamalaśīla* (Sū.11.25),<sup>99</sup> *kāmaśāstra* (Ci.2<sup>1</sup>.4cd–8ab), *Kapila* (Sū.26.8), *Kapilabala* (Sū.7.45–50), *Karāla* (Ci.26.129–131), *kāśmīrāḥ* (Ci.3.114cd–128ab; 10.54–63; 13.112cd–116ab; 25.39cd–43; 30.127cd–132; Si.12.16), *Kāśyapa* (Vi.8.125; Ci.23.32), *Kharanāda* (Ci.3.74, 137cd–138ab, 160cd–161ab, 216–217; 28.15–19ab; 29.24–29), *Kṛṣṇātreya* (Ci.3.197–200ab; 4.73–77; 15.129–131), *Kṣārāpāṇi* (Sū.8.18; 21.39–43; Ni.3.13–14; Ci.3.216–217; 19.7), *kṣāratānta* (Ci.5.60cd–64ab), *Kṣīrasvāmidatta* (Ci.4.93–94), *Kumāratantra* (Śā.6.27),<sup>100</sup> *Laliteśvara* (Sū.30.35),<sup>101</sup> *Nala* (Sū.27.265–267),<sup>102</sup> *Nighaṇṭu* (Ci.7.70–72),<sup>103</sup> *Nighaṇṭukāra* (Sū.27.4),<sup>104</sup> *Nirātmavādimata* (Śā.1.46–47), *Nyāya* (Vi.8.18, 36, 56, 65–66),<sup>105</sup> *nyāyavidyāḥ* (Sū.1.48; 2.7–8; 4.4), *Parāśara* (Ci.15.20cd–35; Si.1.29–31), *Parihāravārttika* (Ci.23.137–139), *pūrvaṭikākṛtṛaḥ* (Ci.29.24–29), *Puṣkalāvata* (Ci.3.160cd–161ab; 12.98; 20.20–22), *Saindhava* (Si.1.20cd–22ab), *saindhavāḥ* (Ci.10.54–63), *Śālākya* (Sū.2.3–6; 5.7, 16–18ab, 20cd–25ab, 26cd–27ab; 8.9; Śā.8.32; Ci.11.56–61; 15.3–4; 26.104–107ab, 107cd–109, 119–123, 127–128, 180–187ab, 187cd–205; Si.9.74–78 (twice) and 111–115,<sup>106</sup> *Śālyatantra* (Ci.5.48cd–56ab and 60cd–64ab; 12.96–97; 25.40), *Sāṃkhyā* (Sū.8.3; Śā.1.24; 2.31–36; 3.8), *Sāṃkhyadarśana* (Si.9.4–5), *sāṃkhyāḥ* (Śā.1.17), *sāṃudrakālḥ* (Śā.8.9), *Sāṃudrika* (1.1.7), *Śāntarākṣita* (Sū.11.25),<sup>107</sup> *Sātyaki* (Ci.26.129–131), *Śaunaka* (Sū.4.7; Ci.3.197–200ab), *Smṛti* (Sū.1.48),<sup>108</sup> *sūdaśāstra* (Sū.2.17; Ci.3.190cd–194ab; Ka.1.23; Si.1.11cd–12ab), *Suśruta* (many times),

suśrutavyākhyātaraḥ (Śā.4.24), Svāmīdāsa (Ci.3.216–217), Vāgbhata (Sū.1.30–31; 6.33–40 and 41–48; 7.41 and 45–50; 17.3–7; Ni.1.8, 10, 11; Vi.8.100; Ci.3.48cd–49 and 197–200ab; 16.24–39ab), Vaideha (Ci.26.119–123), *Vaiśeṣika* (Sū.1.44 and 50;<sup>109</sup> 8.3; 26.29–35),<sup>110</sup> Varāha (Śā.12.67–70),<sup>111</sup> Vāryovida (Si.12.41cd–45ab), Videha (Ci.26.129–131 and 134–143), Viśākhin (Ni.7.7),<sup>112</sup> Viśvāmitra (Sū.27.209–212; Ci.5.71–73), *Vṛddhakāśyapa* (Ci.23.14), *Vyākaraṇa* (I.1.1–2),<sup>113</sup> and Vyāsa (Sū.1.3; Vi.3.24; Ci.23.4–7ab).

Sources quoted anonymously are *Aṣṭāṅgasamgraha* (Ci.8.117–134ab),<sup>114</sup> *Mahābhāṣya* (Sū.1.1, etc), *Nyāyasūtra* (Sū.1.49), Pāṇini's *Aṣṭādhyāyī* (Sū.1.1, etc.), *Raghuvamśa* (Sū.1.1), *Sāmkhyakārikā* (Śā.1.20–21, 24, 29–30, 37–38, 63–64, 66–67ab, 67cd–69), Vāgbhata (Sū.26.57cd–58), and *Vaiśeṣikasūtra* (Sū.1.1, etc.).

Cakrapāṇidatta's *Āyurvedadīpikā* is quoted<sup>115</sup> in Satyanārāyaṇasāstrin's *Padārthavijñāna*, Priyavrat Śarmā's auto-commentaries on *Āyurvedadarśana* and *Dravyaguṇasūtra*, and Śivadāsa's commentary on the Sūtrasthāna of the *Carakasamhitā*. The latter has extensively borrowed from Cakrapāṇi. The commentaries on the *Carakasamhitā* by Gaṅgādhara and Yogīndranāthasena refer very often to the *Āyurvedadīpikā* without mentioning Cakrapāṇidatta or his work by name.

Niścalakara quotes the *Āyurvedadīpikā* as (Cakra's) *Dīpikā*; its author is referred to as the *Dīpikākāra* or -kṛt. Śivadāsa quotes the *Āyurvedadīpikā* in his commentary on the *Cakradatta* as *Cakravyākhyā* and *Dīpikā*, possibly also as Cakra.

Cakrapāṇidatta's commentary contains information on the text of the *Carakasamhitā*. He indicates which verses he regards as not belonging to the original text,<sup>116</sup> and points to verses accepted by some, but rejected by other commentators or schools of interpretation.<sup>117</sup> Variant readings are rather often recorded.<sup>118</sup> He mentions his preference for particular readings<sup>119</sup> or remains undecided. Cakrapāṇidatta's text of the *Carakasamhitā* emends some readings of the text of the Nirṇayasāgar edition.<sup>120</sup>

Cakrapāṇidatta frequently quotes the views of predecessors and their interpretations of the text. In contrast with Ḍaḥṇa, however, it is difficult to make out which earlier commentator was his favourite authority.<sup>121</sup> Noteworthy are the numerous quotations from Jatukarṇa and, in particular, the rarity with which Jejṇṇa is cited. It is not uncommon to see Cakrapāṇidatta refer to a series of interpretations by predecessors without making a choice, or placing side by side a number of explanations.<sup>122</sup> The precise meaning of particular technical terms was unknown to him.<sup>123</sup> The same applies to the identity of a number of particular medicinal substances.<sup>124</sup> The vernacular names of drugs mentioned by him are usually those known in Bengal.<sup>125</sup>

Cakrapāṇidatta's commentary is characterized by a conciliatory attitude. Differences between the *Caraka*- and *Suśrutasaṃhitā* are smoothed out.<sup>126</sup>

Cakrapāṇidatta was not interested in psychopathology since, in his opinion, the *Carakasamhitā* is exclusively devoted to kāyacikitsā: the mānasadoṣas are therefore of no importance.<sup>127</sup> He did not admit blood as a doṣa<sup>128</sup> and was in doubt regarding the relationship between pitta and agni.<sup>129</sup> The concepts of poṣya or sthāyin and poṣaka or asthāyin dhātu were known to him.<sup>130</sup> Regarding the metabolism of the dhātus, he concluded that the khalekapotanyāya had an explanatory force equal to (tulyabala) that of the kedārikulyānyāya and other theories.<sup>131</sup> On another occasion,<sup>132</sup> he preferred either



the kedārīkulyānyāya or the dadhikṣīranāyāya to the khalekapotanyāya.<sup>133</sup> Noteworthy is the limited role he gives to the pathophysiological processes called samprāpti.<sup>134</sup> Important is the remark on the clay-like colour of the stools in obstructive jaundice.<sup>135</sup> A saḥajā and vaināyākī buddhi are distinguished.<sup>136</sup>

With regard to dharma, Cakrapāṇidatta was of the opinion that animals may be killed if required for the preservation of health or the curing of disease, since āyurveda is concerned with ārogyasādhana and not with dharmaśādhana.<sup>137</sup>

Cakrapāṇidatta's philosophical views are in agreement with the later stages of Nyāya, Vaiśeṣika and Sāṃkhya. This explains that he is sometimes critical of Caraka<sup>138</sup> and tries to conciliate statements found in the *Carakasamhitā* with Nyāya doctrines.<sup>139</sup> In contrast with Caraka, Cakrapāṇidatta does not accept yukti as a separate pramāṇa.<sup>140</sup> He quotes Śāntarakṣita and Kamalaśīla in support of his thesis that it is almost the same as anumāna,<sup>141</sup> or regards it as identical with ūha.<sup>142</sup> An important source of Cakrapāṇidatta was the *Prāśastapādabhāṣya*, which is extensively quoted.<sup>143 144</sup>

A CANDRIKĀKĀRA, –kāraka or –kṛt,<sup>145</sup> the author of a commentary called *Candrikā*, and this commentary itself, are repeatedly quoted.<sup>146</sup> It has to be taken into consideration that more than one commentary can be referred to as *Candrikā*, and that in many instances it is impossible to decide which one is meant.<sup>147</sup> Part of the quotations are from Gayadāsa's *Nyāyacandrikāpañjikā* on the *Suśrutasaṃhitā*;<sup>148</sup> some are from Candranandana's *Padārthacandrikā* on the *Aṣṭāṅgahṛdayasaṃhitā*,<sup>149</sup> other ones again may be from commentaries on the *Carakasamhitā*<sup>150</sup> and *Suśrutasaṃhitā* which have not been preserved.<sup>151</sup> P. Cordier supposed that Gayadāsa wrote a commentary on the *Carakasamhitā*, called *Carakacandrikā* and quoted as *Candrikā*.<sup>152</sup> The same view has been expressed by P.V. Sharma.<sup>153</sup>

The *Candrikā* and its author are quoted by Aruṇadatta,<sup>154</sup> Cakrapāṇidatta in his *Āyurvedadīpikā*,<sup>155</sup> Ḍalhaṇa,<sup>156</sup> Gopāladāsa in his *Cikitsāmrta*, Hariśaraṇasena in his *Dravyaguṇākara*, Jīvānandavidyāsāgara in his commentary on the *Rasendrasārasaṃgraha*,<sup>157</sup> Lakṣmīrāma in his commentary on the *Siddhabhṛṣajamaṇimālā*,<sup>158</sup> Meghadeva in his commentary on the *Mādhavadravyaguṇa*, Nāganātha in his *Nidānapradīpa*, Narahari in his *Vāgbhaṭamaṇḍana*,<sup>159</sup> Niścalakara,<sup>160</sup> Śivādāsasena in his commentaries on Cakrapāṇidatta's *Cikitsāsaṃgraha*<sup>161</sup> and *Dravyaguṇa*,<sup>162</sup> Śrīkaṇṭhadatta in the *Madhukośa*,<sup>163</sup> Tṛḍara in his *Āyurvedasaṃkhyā*,<sup>164</sup> and Vijayarakṣita in the *Madhukośa*.<sup>165</sup>

CELLADEVA<sup>166</sup> is a commentator quoted by Jejjāta.<sup>167</sup> According to P.V. Sharma he lived in the eighth century,<sup>168</sup> but in my view at least a century earlier on account of Jejjāta's date.

ḌALHAṆA is sometimes mentioned as a commentator on the *Carakasamhitā*.<sup>169</sup>

GADĀDHARA wrote a commentary on the *Carakasamhitā* according to some scholars.<sup>170</sup> The two pieces of evidence on this point are problematic. Vijayarakṣita and Niścalakara quote the same series of interpretations of a particular technical term; one

of these interpretations is, according to Vijayarakṣita, from Gadādhara, but from the *Candrikā* according to Niścalakara.<sup>171</sup> A gloss to the *Bhāvaprakāśa*<sup>172</sup> is problematic since it quotes a verse of Gadādhara that conflicts with a verse of Ḍṛḍhabala.

GAṄGĀDHARA KAVIRĀJA wrote a commentary on the *Carakasamhitā*, called *Jalpapakalpataru*.<sup>173</sup> This very elaborate commentary deals at great length with philosophical subjects, but gives much less attention to specifically medical topics. The information on drugs is in general disappointing.<sup>174</sup> The views of Cakrapāṇidatta are on many occasions challenged without reference to him by name.<sup>175</sup>

Authorities and works quoted by Gaṅgādhara are: Agastya (177: Sū.1.62–63ab), *Agnipurāṇa* (522: Sū.11.23–26), *Atriśaṇhitā* (16: Sū.1.8–16ab),<sup>176</sup> Bādarāyaṇa (1867 and 1869: Śā.1.152–154),<sup>177</sup> *Bhagavadgītā* (1826: Śā.1.75–76; 1958: Śā.4.9–12), Bhāluḥ (2442: Ci.3.108), *Bhāṣya* (many times),<sup>178</sup> Bhela (2428: Ci.3.72), Caraka (passim), *Chāndogyopaniṣad* (876: Sū.25.27–29; 1881: Śā.1.152–154; 1891: Śā.1.155), Gautama and Gautama Akṣapāda (often),<sup>179</sup> Hārīta (2312: Ci.1<sup>3</sup>.36–40; 2428: Ci.3.72; 2438: Ci.3.87), Jaimini (39: Sū.1.45; 1869: Śā.1.152–154),<sup>180</sup> Jatūkarṇa (297: Sū.5.49cd–51ab; 985: Sū.26.84; 2412: Ci.3.50ab), *Kaivalyopaniṣad* (796: Sū.21.34–35),<sup>181</sup> Kaṇāda (often),<sup>182</sup> Kapila (several times),<sup>183</sup> *Kaṭhavalī* (163: Sū.1.56),<sup>184</sup> *Kātyāyanavārttika* (527: Sū.11.23–26), *Laiṅga* (48: Sū.1.47; 864: Sū.25.18–19; 1883: Śā.1.155),<sup>185</sup> *Mahābhārata* (326: Sū.6.7), *Māṇḍūkyopaniṣad* (138, 160 and 161: Sū.1.56; 795 and 796: Sū.21.34–35), *Muṇḍakopaniṣad* (1825: Śā.1.75–76; 1869: Śā.1.152–154), *Nāgabhartṛtantra* (2428: Ci.3.72), Nārada (432: Sū.11.18–29),<sup>186</sup> *Nyāyasūtra* (142; Sū.1.56), Parāśara (864: Sū.25.14–15; 1214: Ni.1.8; 2432: Ci.3.73),<sup>187</sup> *Pātañjala* (1854; Śā.1.141; 1877: Śā.1.154; 1884: Śā.1.155),<sup>188</sup> *Pātañjali* (513: Sū.11.20), *Praśnopaniṣad* (1882: Śā.1.154), Rāvaṇa's *Kumāratantra* (2138–2141: Śā.8.65), *Sāṃkhya* (Śā.1.155), Suśruta (passim), *Śvetāśvataropaniṣad* (875 and 876: Sū.25.27–29; 1825: Śā.1.75–76), *Taittirīyopaniṣad* (443: Sū.9.4; 874: Sū.25.27–29), *Vaiśeṣika* (531 and 532: Sū.11.23–26), Vātsyāyana (many times),<sup>189</sup> Videha (690, 691, 692: Sū.17.26), Vyāsa (431: Sū.8.18–29; 585: Sū.12.8),<sup>190</sup> and Yājñavalkya (431: Sū.8.18–29; 1826: Śā.1.77; 1828: Śā.1.79).<sup>191</sup>

Gaṅgādhara is quoted in Āśubodha Vidyābhūṣaṇa's commentary on Govindasena's *Paribhāṣāpradīpa*. Gaṅgādhara and his *Jalpapakalpataru* are referred to in Satyanārāyaṇaśāstrin's *Padārtha vijñāna*. Gaṅgādhara's commentary is quoted in Guḷrāṣarmamiśra's commentary on the *Āyurvedaprakāśa*. The *Jalpapakalpataru* is quoted in Hārāpaṇḍita's commentary on the *Suśrutasaṇhitā* (ad Su.Sū.6.21–38), Priyavrat Śarmā's auto-commentary on the *Āyurvedadarśana*, and the same author's *Doṣakāraṇatvamī māṃsā*.

GAṄGĀDHARA KAVIRĀJA was the author of the following medical works:<sup>192</sup> (1) *Āgneyāyurvedavyākhyā*,<sup>193</sup> (2) *Ārogyastotra*,<sup>194</sup> (3) *Āyurvedasaṃgraha*,<sup>195</sup> (4) *Bhaiṣajyārāmāyaṇa*,<sup>196</sup> (5) *Bhāskarodaya*,<sup>197</sup> (6) *Jalpapakalpataru*, the commentary on the *Carakasamhitā*, (7) *Mṛtyuñjayaśaṇhitā*,<sup>198</sup> (8) *Nāḍiparīkṣā*,<sup>199</sup> (9) *Paribhāṣā*,<sup>200</sup> (10) *Pathyāpathya*,<sup>201</sup> (11) *Prayogacandrodaya*,<sup>202</sup> (12) a commentary, called *Vivṛti*, on the *Rājavalābhanighaṇṭu*,<sup>203</sup> and (13) *Vaidyatattvavinīścaya*.<sup>204</sup>

Garigādhara was born in a village called Yaśohara<sup>205</sup> or Māgurā,<sup>206</sup> in the district of Jessore, now in Bangla Desh, in the year 1798<sup>207</sup> or 1799.<sup>208</sup> His parents were Bhavānīprasad Roy and Abhayā Devī. After having become proficient in Sanskrit at the age of eighteen, he studied āyurveda under the guidance of Rāmakānta Sena in Belgharia, in the district of Rājshāhi. He started practice in Calcutta, but, due to ill health, moved to Murśidābād,<sup>209</sup> where he became a very renowned physician,<sup>210</sup> who, due to his extensive learning, was called sarvaśāstrajña.<sup>211</sup>

Garigādhara is closely connected with the nineteenth-century revival of āyurveda in Bengal, and trained a large number of pupils who, in their turn, became influential teachers in various parts of India. Some well-known pupils of his were Dvārakānāthasena,<sup>212</sup> Hārāṇacandra,<sup>213</sup> and Pareśanāthasena.<sup>214</sup> Garigādhara died in 1884<sup>215</sup> or 1885.<sup>216</sup>

GAYADĀSA<sup>217</sup> wrote, according to some scholars, commentaries on both the *Caraka*- and *Suśrutasaṃhitā*.<sup>218</sup> Conclusive proofs that he commented on the *Carakasaṃhitā* have not been adduced. It can, however, not completely be ruled out that some quotations from the *Candrikā* and its author refer to a commentary, called *Carakacandrikā*, on the *Carakasaṃhitā* by Gayadāsa.<sup>219</sup>

GOVARDHANA is regarded as a commentator on the *Carakasaṃhitā* by P. Cordier.<sup>220</sup>

GUṆĀKARA is regarded as the author of a commentary on the *Carakasaṃhitā*.<sup>221</sup> The few quotations which are available may be in support of this hypothesis. Vijayarakṣita and Vācaspati mention in their commentaries on the *Mādhavanidāna* (5.31–32 = Ca. Ci. 14.21–22) explanations of a particular technical term by Cakra(pāṇidatta), Guṇākara and Gadādhara. Niścalakara repeats these comments, with slight variants, in his *Ratnaprabhā*, replacing Gadādhara by a work called *Candrikā*.<sup>222</sup> The quotation in the *Mādhavanidāna* may imply that, besides Cakrapāṇidatta, Guṇākara and Gadādhara commented on the *Carakasaṃhitā*; this piece of evidence is unfortunately not conclusive, because the technical term involved (āṭopa) also occurs in the *Suśrutasaṃhitā*. Moreover, Niścala's remarks form part of his comments on a verse from an unknown source, which may or may not be Caraka.<sup>223</sup> Another quotation from Guṇākara in Niścala's commentary<sup>224</sup> is inconclusive, because it refers to a verse borrowed from an unknown source again.

The Guṇākara referred to is without any doubt different from the author of the same name who wrote a commentary on the *Yogaratanmālā* ascribed to Nāgārjuna,<sup>225</sup> because the latter Guṇākara is later than Vijayarakṣita. The Guṇākara quoted by Vijayarakṣita, Niścalakara and Vācaspati may belong to the eleventh century, since Vijayarakṣita lived in the first half of the twelfth century.<sup>226</sup>

A medical authority called Guṇākara whose identity cannot be determined is quoted in Gopāladāsa's *Cikitsāmrta* and Nāganātha's *Nidānapradīpa*.

HARICANDRA or HARIŚCANDRA, also called Bhaṭṭāra(ka)hari(ś)candra,<sup>227</sup> and sometimes indicated merely by his title of distinction, Bhaṭṭāra(ka),<sup>228</sup> was a very

early, probably even the earliest, commentator on the *Carakasamhitā*. A small portion of his commentary, the *Carakanyāsa*,<sup>229</sup> has been preserved.<sup>230</sup> Its maṅgala is addressed to Sūrya.<sup>231</sup> The extant part shows that Haricandra was well acquainted with the tantrayuktis.<sup>232</sup>

Bhaṭṭārahariścandra also wrote a revised version of the *Kharanādasamhitā*, which he based on the *Carakasamhitā*.<sup>233</sup> Niścalakara may have had this revised *Kharanādasamhitā* in mind when quoting from Bhaṭṭāra's own samhitā,<sup>234</sup> unless the latter was a separate work.<sup>235</sup>

Some suppose that Bhaṭṭārahariścandra was also the author of a commentary on the *Aṣṭāṅgahrdayasamhitā*;<sup>236</sup> this view is contradicted by Niścalakara, who remarks that Vāgbhaṭa quotes Haricandra.<sup>237</sup>

(Bhaṭṭāra)hari(ś)candra is quoted by Ādhamalla,<sup>238</sup> Anantakumāra,<sup>239</sup> Aruṇadatta,<sup>240</sup> in the *Bṛhannighaṇṭuratanākara*,<sup>241</sup> by Cakrapāṇidatta,<sup>242</sup> Candranandana,<sup>243</sup> Dalhaṇa,<sup>244</sup> Gopāladāsa in his *Cikitsāmrta*, Hemādri,<sup>245</sup> Indu,<sup>246</sup> Jejjāta,<sup>247</sup> Karandīkar in his *Nidānadīpikā*,<sup>248</sup> Nāganātha in his *Nidānapradīpa*, Narahari in his *Vāgbhaṭa(khaṇḍana)maṇḍana*,<sup>249</sup> Narasiṃha in his commentary on the *Mādhavanidāna*, Niścalakara,<sup>250</sup> Rūpanayana in his commentary on the *Yogaśataka*, Śivadāsasena in his commentaries on the *Carakasamhitā*,<sup>251</sup> Cakrapāṇidatta's *Cikitsāsaṃgraha*<sup>252</sup> and *Dravyaguna*,<sup>253</sup> Śrīdāsapaṇḍita,<sup>254</sup> Śrīkaṇṭhadatta,<sup>255</sup> Tōdarānanda in his *Āyurvedasaukhya*,<sup>256</sup> Vācaspati,<sup>257</sup> Vijayarakṣita,<sup>258</sup> Vopadeva,<sup>259</sup> and in the *Yogaratanākara*.<sup>260</sup> Haricandra is referred to in the *Bṛhannighaṇṭuratanākara*,<sup>261</sup> by Candrāṭa,<sup>262</sup> in the *Mādhavadravayaguna*,<sup>263</sup> by Svāmikumāra, and in an anonymous commentary on the *Aṣṭāṅgasamgraha*. An unidentified Hariścandra is cited in the *Bhesajjamaijūsāsannaya*.

An authority called Vṛddhahāriścandra is quoted in Anantakumāra's *Yogaratanasamuccaya*.<sup>264</sup>

The Naiyāsika, quoted by Śrīdāsapaṇḍita,<sup>265</sup> may be Hariścandra, and the *Nyāsa*, quoted by the same author,<sup>266</sup> his *Carakanyāsa*.

Haricandra's commentary acquired great fame.<sup>267</sup> Hemādri refers to Haricandra (in the introduction to his *Āyurvedarasāyana*) as the model of the commentators on the *Carakasamhitā*. Haricandra's commentary was often praised by later authors for its high qualities. Candrāṭa says in the introductory verses of his commentary on the *Cikitsākalikā*: "As there exist commentators like Haricandra, Jejjāta, and Sudhīra, it is presumptuous for anyone else to comment on the āyurveda". Another statement testifying to his reputation runs as follows:<sup>268</sup> "The ignorant one who attempts to understand Caraka's thought without (consulting) Haricandra's commentary, is (like) a man who wants to drink up<sup>269</sup> the ocean." Niścala regards Haricandra on many occasions as an important authority.

Niścalakara<sup>270</sup> and Śivadāsasena<sup>271</sup> are sometimes critical of Haricandra's opinions. Indu often rejects his interpretations.

Narahari gives in his *Vāgbhaṭamaṇḍana* the following laudatory epithets to Hariścandra: munitulya, nayavid and sakalavaidyamānyatama. Śrīdāsapaṇḍita eulogizes Haricandra as the foremost authority on internal medicine.<sup>272</sup> Some of his views on particular subjects are mentioned by Niścala. Haricandra acknowledged eighteen

types of kṣaya;<sup>273</sup> he distinguished a gulma in women caused by ārtava and a gulma caused by blood occurring in both males and females.<sup>274</sup>

Haricandra and Jejjāta are more than once bracketed together in Niścāla's *Ratnaprabhā*. They are said to agree on many points,<sup>275</sup> but exceptions do occur too.<sup>276</sup>

Haricandra is mentioned as a commentator on the *Carakasaṃhitā* by Maheśvara in his *Viśvaprakāśa*: "He whose name was Haricandra, whose behaviour was as agreeable as that of the moon, held in a wholly unrivalled way the position of an irreproachable court physician to King Sāhasāṅka and adorned the treatise of Caraka with his own commentary".<sup>277</sup>

Haricandra is one of a series of medical authorities enumerated in a Sanskrit-Tibetan dictionary, called *Mahāvvyutpatti*, prepared by order of Khri-lde sroṅ-bcān (A.D. 816–838); his Tibetan name is *Seṅ-ge zla-ba*.<sup>278</sup>

A prose writer called Haricandra<sup>279</sup> is referred to in Bāṇa's *Harṣacarita*<sup>280</sup> and Vākpati's *Gaṇīkāvahā*.<sup>281</sup> An author of the same name is referred to and quoted in Śrīdharadāsa's *Saduktikarṇāmrta*<sup>282</sup> and Vallabhadeva's *Subhāṣitāvalī*.<sup>283</sup>

A Haricandravidyātīlaka is mentioned as one of the six sons of Śabarasvāmin.<sup>284</sup>

A Jain poet of the name Haricandra, belonging to the Digambaras, and a son of Ārdradeva and Rādhā,<sup>285</sup> is undoubtedly different from Bhaṭṭāraharicandra.<sup>286</sup> Śyāmilaka's *Pāṇḍarīkita*<sup>287</sup> refers to a Bāhlika physician called Haricandra, who belonged to the Kāṅkāyanagotra and was a son of Īśānacandra.<sup>288</sup> A Haricandra who was much later than our commentator lived at the court of Bhīllama III of Devagiri and composed an inscription in the year 1205.<sup>289</sup>

The evidence available points to an early date for Haricandra because he is already quoted by Jejjāta.<sup>290</sup> Cakrapāṇidatta<sup>291</sup> and Niścālakara<sup>292</sup> were convinced that he preceded Vāgbhaṭa,<sup>293</sup> which would mean that he lived before A.D. 600. More difficult to determine is whether or not he wrote his commentary before the *Carakasaṃhitā* had been completed by Dr̥ḍhabala. P.V. Sharma's statement that Haricandra deals with the tantrayuktis at the beginning of his commentary<sup>294</sup> may indicate that he was not yet acquainted with Dr̥ḍhabala's redaction, which treats the subject at the end.<sup>295</sup> A remark made by Jejjāta,<sup>296</sup> namely that the chapter on madātyaya (Ca.Ci.24) was redacted by Caraka (and not by Dr̥ḍhabala) and has been well explained by Bhaṭṭāraharicandra, may be seen as slightly in favour of the view that Haricandra preceded Dr̥ḍhabala.<sup>297</sup>

Maheśvara's statement that Haricandra, the commentator on the *Carakasaṃhitā*, lived six generations earlier would make Haricandra belong to the early part of the tenth century, which does not tally with the probable date of Jejjāta.<sup>298</sup>

The identity of King Sāhasāṅka, Haricandra's patron according to Maheśvara, is a matter of dispute. The names of five kings are found in the literature on this subject: Candragupta II Vikramāditya (A.D. 380–413), Skandagupta (A.D. 455–467), Yaśodharman of Mālwa (sixth century), Narendra of Bengal (sixth–seventh century), and Śrīcandradeva of Kanauj (eleventh century).<sup>299</sup> Since the only concrete evidence we can hold on to with regard to Haricandra's date is that he preceded Jejjāta, and, according to Cakrapāṇidatta and Niścāla, Vāgbhaṭa, it is in my view impossible to decide which king may have been Haricandra's patron, the more so because the epithet

of Sāhasārika was given to several kings.<sup>300</sup> Equally uncertain is the identity of one or more authors called Haricandra with the physician of that name.<sup>301</sup> Haricandra's place of residence is unknown, although it has been suggested that he lived in Ujjayinī.<sup>302</sup>

HEMACANDRA is by some<sup>303</sup> regarded as a commentator on the *Carakasamhitā*.

HEMĀDRI is by some<sup>304</sup> regarded as a commentator on the *Carakasamhitā*.

HIMADATTA<sup>305</sup> is quoted as an early commentator on the *Carakasamhitā* by Jejjāta,<sup>306</sup> who accepts a certain reading on the authority of this author and some others, mentioned along with him.<sup>307</sup> According to P.V. Sharma, he also wrote a commentary on the *Aṣṭāṅgahṛdayasamhitā* and has to be placed in the eighth century.<sup>308</sup> G. Hāldā,<sup>309</sup> also mentions this commentary on the *Aṣṭāṅgahṛdayasamhitā* and asserts that he is somewhat earlier than the ninth century. B. Tripāthī<sup>310</sup> places him in the ninth century. Actually, Himadatta's date depends on that of Jejjāta, who quotes him.

INDUKARA is by some<sup>311</sup> regarded as a commentator on the *Carakasamhitā*.

ĪŚĀNA or ĪŚĀNADEVA<sup>312</sup> was a commentator on the *Carakasamhitā*.<sup>313</sup> A commentary (vyākhyā) by Īśāna is explicitly referred to in Śrīkaṇṭhadatta's commentary on the *Siddhayoga*. Nīścalakara's quotations are for by far the larger part from a commentary on the *Carakasamhitā*.

Īśāna(deva) is quoted by Nāganātha in his *Nidānapradīpa*, Nīścalakara,<sup>314</sup> Śrīkaṇṭhadatta,<sup>315</sup> Vācaspati,<sup>316</sup> and Vijayarakṣita.<sup>317</sup> Īśāna is mentioned as a commentator in the *Brhannighaṇṭurātṇākara*.<sup>318</sup>

Nīścala's quotations indicate that Īśāna disagreed with Jejjāta on many points.<sup>319</sup> Cakrapāṇidatta supported Īśāna's views occasionally against those of Jejjāta.<sup>320</sup> Amitaprabha accepted some of Īśāna's interpretations of Caraka.<sup>321</sup> An author quoted by Īśāna is Pālākāpya.<sup>322</sup>

D.Ch. Bhattacharyya<sup>323</sup> suggested that Deva might be Īśāna's family name. According to some scholars he was the son of Keśavadeva, ruler of Tripura,<sup>324</sup> and held the same position as his father after the latter's death.<sup>325</sup>

Support for P. Cordier's claim<sup>326</sup> that Īśāna was a Buddhist is not available.

Īśāna is earlier than Vijayarakṣita who quotes him; he is also anterior to Amitaprabha and Cakrapāṇidatta, who are said to agree with him on some issues. Pālākāpya, cited by Īśāna, evidently preceded him.<sup>327</sup>

ĪŚVARASENA<sup>328</sup> was a commentator on the *Carakasamhitā*.<sup>329</sup> He is quoted by Cakrapāṇidatta,<sup>330</sup> Narahari,<sup>331</sup> Nīścalakara,<sup>332</sup> Śrīkaṇṭhadatta,<sup>333</sup> and Vijayarakṣita.<sup>334</sup> The *Brhannighaṇṭurātṇākara* refers to Īśvarasena as a commentator.<sup>335</sup> He is said to have commented on the *Aṣṭāṅgahṛdayasamhitā* as well.<sup>336</sup>

Īśvarasena was the son of Siddheśvarasena.<sup>337</sup> His chronological position depends on the issue whether or not Cakrapāṇidatta and Nīścalakara mention a series of authors and commentators in chronological order. Both lists give the impression that this is the

case,<sup>338</sup> which is in favour of the conclusion that Īśvarasena has to be placed in the period between Jejjāta on the one hand, and Gadādhara on the other.<sup>339</sup>

JAYANANDIN is sometimes mentioned as a commentator on the *Carakasamhitā*.<sup>340</sup>

JEJJĀTA<sup>341</sup> wrote commentaries on the *Caraka-* and *Suśrutasamhitā*. The commentary on the *Carakasamhitā*, called *Nirantarapadavyākhyā*,<sup>342</sup> has partly been preserved.<sup>343</sup> The extant portions cover Ci.1<sup>3</sup>.32–5.73; 23.159–24.20; 24.29–26.10; 28.83cd–29.11; 29.49–30.132; 30.288–312; Ka.1.1–4; Si.3.8–7.32; 12.74–78.<sup>344</sup>

Authorities and works quoted or referred to by Jejjāta in this commentary are: Agniveśa (Ci.3.63–67 and 71–72), Aśādhavarman (Ci.3.73, 161cd–163ab, 216–217), *Bhālukiya* (Ci.3.89cd–109ab), Bhaṭṭārahariścandra (Ci.3.137cd–138ab and 149cd–155ab; 24.3–5),<sup>345</sup> Bhela (Ci.3.160cd–161ab and 197–200ab; Si.3.13cd–20ab), Bhoja (Ci.25.24–25 and 31ab; Si.3.13cd–20ab),<sup>346</sup> Celladeva (Si.4.38–40; 6.24),<sup>347</sup> Dāruvāha (Ci.3.63–67), dhānvantarīyaḥ (Ci.5.61cd–64ab),<sup>348</sup> Dr̥ḍhabala (Ci.30.127cd–132 and 289–290),<sup>349</sup> Hārīta (Ci.3.71–72, 75–83, 138cd–139ab, 146cd–147ab, 149cd–155ab, 160cd–161ab, 161cd–163ab), Himadatta (Ci.3.216–217),<sup>350</sup> Jātūkarna (Ci.3.63–67 and 258–259), Kharanāda (Ci.3.160cd–161ab and 216–217), Kṣārapāṇi (Ci.3.63–67 and 216–217; Si.4.25),<sup>351</sup> nyāyavidaḥ (Ci.25.27), Parāśara (Ci.3.73), Pārāśarya (Si.3.13cd–20ab), *Śalyatantra* (Ci.25.40), samāptikāra (Si.6.5–6),<sup>352</sup> sauśrutāḥ (Ci.23.250–253), *sūdasāstra* (Ci.24.10–20),<sup>353</sup> Suśruta (Ci.3.149cd–155ab, 160cd–161ab, 197–200ab, 216–217;<sup>354</sup> 23.170–174; 24.107–111), Svāmīdāsa (Ci.3.216–217, *Tārksyatantra* (Ci.23.250–253),<sup>355</sup> vārttikakāra (Ci.4.93–94),<sup>356</sup> and *Yogasāstra* (Ci.28.220cd–222ab).<sup>357</sup>

Additional sources are, according to Haridattaśāstrin:<sup>358</sup> *Manu* (p. 836), *Nirukta* (p. 833), Śaunaka (p. 876), *smṛti* (p. 840), *śruti* (pages 839 and 844), *Vyākaraṇakārikā* (p. 880),<sup>359</sup> and Vyāsabhaṭṭāra (p. 839). P.V. Sharma adds Śaunaka and Vāgbhaṭa.<sup>360</sup> P.V. Sharma and G.P. Sharma<sup>361</sup> add the aupaniśada chapter of the *Kāmasūtra* (Ci.2.47), Patañjali's *Mahābhāṣya* (Ci.24.88), and Vāgbhaṭa. K.R. SrikanthaMurthy adds the *Aṣṭāṅgavātāra*.<sup>362</sup> Some anonymous quotations (Ci.28.83cd–89ab; Ci.30.63–70ab) may derive from an early nighaṇṭu.

Jejjāta quotes Videha according to Nīścala.<sup>363</sup>

Schools of interpretation of the *Carakasamhitā*, referred to by Jejjāta, are the gauḍāḥ (Ci.3.197–200ab; 28.89cd–99ab), hariścandrāḥ (Ci.3.179cd–188ab),<sup>364</sup> kāmīrāḥ (Ci.3.210–214; 30.127cd–132), paitāmahāḥ (Si.3.30cd–31ab),<sup>365</sup> saindhavāḥ (Ci.3.210–214; 30.127cd–132), śivasaindhavāḥ (Ci.3.73),<sup>366</sup> and vaiṣṇavāḥ (Si.3.27–30ab; 6.24).

As can be seen from the above lists, Jejjāta had many predecessors, sometimes quoted as ṭīkākārāḥ (e.g., Ci.3.139cd–140ab) or vyākhyākārāḥ (e.g., Ci.3.194cd–196).

It mattered very much to Jejjāta to determine which readings of the *Carakasamhitā* could be regarded as genuine. An important example is found in his comments to chapter thirty of the *Cikitsāsthāna*, where verses 128cd–287 are rejected by him, although these are acknowledged by the kāmīrāḥ and saindhavāḥ.<sup>367</sup> Some other verses, regarded as spurious by Jejjāta, are Ci.3.194ab–195cd and 211–214.<sup>368</sup> Nīścala records

that Jejjāta did not accept Ci.4.66 as authoritative.<sup>369</sup> The recension adopted by Jejjāta as authoritative differs at a considerable number of places from the one recognized by Cakrapāṇidatta.<sup>370</sup> An interesting example is Ci.30.82, where būka and pullāsa are substituted for veṇu and kośāmra.<sup>371</sup> Jejjāta does not accept the readings of the gaudā, kāmśīra and saindhava recensions of the *Carakasamhitā*.

The information on drugs provided by Jejjāta shows that differences of opinion already existed with regard to the identity of a number of medicinal substances.<sup>372</sup> Descriptions of plants,<sup>373</sup> the names of the regions where they grow,<sup>374</sup> and their local names<sup>375</sup> are relatively rare.

Cakrapāṇidatta's commentary on the *Carakasamhitā* shows the influence of Jejjāta,<sup>376</sup> although the latter is referred to once only.<sup>377</sup>

Bakula versified parts of Jejjāta's commentary on the *Carakasamhitā*.<sup>378</sup>

It is beyond all doubt that Jejjāta also wrote a commentary on the whole of the *Suśrutasaṃhitā*. This commentary, also partly preserved,<sup>379</sup> must have been one of the oldest, or even the oldest one, on that treatise. Its title is nowhere recorded, although P. Cordier<sup>380</sup> and S. Dasgupta<sup>381</sup> held the opinion that it was called *Bṛ-hallaghupañjikā*.<sup>382</sup> Jejjāta's commentary on the *Suśrutasaṃhitā* must have remained available for a long time, since it was consulted by Candrāta before he started writing his *Suśrutapāṭhaśuddhi*. Niścala's *Ratnaprabhā* on the *Cakradatta* and Ḍalhaṇa's *Nibandhasaṃgraha* on the *Suśrutasaṃhitā* are rich sources of quotations from Jejjāta's commentary.<sup>383</sup> Hemādri still refers to it in the introduction to his *Āyurvedasāyana* on the *Aṣṭāṅghaṛdayasaṃhitā* as the model of the commentaries on the *Suśrutasaṃhitā*.

The quotations in Ḍalhaṇa's commentary prove that one of Jejjāta's aims was, in the same way as in his commentary on Caraka, to establish a reliable text and to discard readings which he considered to be inauthentic (anārṣa).<sup>384</sup> On the other hand he sometimes added verses, composed by himself, to the text of the *Suśrutasaṃhitā*, as is made clear by Gayadāsa and Ḍalhaṇa.<sup>385</sup>

Some scholars claim that Jejjāta wrote a commentary on Vāgbhaṭa's works.<sup>386</sup> This assertion, which is not supported by evidence, is probably based on the tradition that Indu and Jejjāta were pupils of Vāgbhaṭa.

Authors and works quoting from or referring to Jejjāta<sup>387</sup> are: Āḍhamalla in his commentary on the *Śārngadharaśaṃhitā*,<sup>388</sup> Ambikādattaśāstrin in his commentary on the *Rasendrasārasaṃgraha*,<sup>389</sup> Anantakumāra,<sup>390</sup> the commentary on the *Āyurvedā-bdhisāra*, Bhāvamiśra,<sup>391</sup> Cakrapāṇidatta,<sup>392</sup> Candrāta,<sup>393</sup> Ḍalhaṇa,<sup>394</sup> Gayadāsa,<sup>395</sup> Gopālādāsa in his *Cikitsāmrta*, Gulrājśarmamiśra in his *Viśikhānupraveśavijñāna*, Hemādri,<sup>396</sup> Indu,<sup>397</sup> the *Kairālī* commentary on the Uttarasthāna of the *Aṣṭāṅghaṛdayasaṃhitā*,<sup>398</sup> Karandikar in his *Nidānādīpikā*,<sup>399</sup> Kāśirāma's commentary on the *Śārngadharaśaṃhitā*,<sup>400</sup> Kṛṣṇadatta's commentary on Trimalla's *Śataśloki*, Meghadeva's commentary on the *Mādhavadravayaguṇa*, Nāganātha's *Nidānapradīpa*, Narahari's *Vāgbhaṭamaṇḍana*,<sup>401</sup> Narasiṃha's commentary on the *Mādhavanidāna*, Nārāyaṇa's *Jvaranirṇaya*, Nīlamegha's auto-commentary on the *Tantrayuktivicāra*, Niścalakara,<sup>402</sup> Rūpanayana in his commentary on the *Yogaśataka*, Śivadāsaśena in his commentaries on the *Carakasamhitā*,<sup>403</sup> Uttarasthāna of the *Aṣṭāṅghaṛdayasaṃhitā*,<sup>404</sup> Cakrapāṇidatta's *Cikitsāsaṃgraha*<sup>405</sup> and *Dravyaguṇa*,<sup>406</sup> Śivadatta



in his auto-commentary on the *Śivakośa*,<sup>407</sup> Śrīkaṇṭhadatta in the *Madhukośa*<sup>408</sup> and *Kusumāvalī*,<sup>409</sup> Sukhānanda in his commentary on the *Vaidyajīvana*,<sup>410</sup> Ṭoḍara in his *Āyurvedasaukhyā*,<sup>411</sup> Trimalla in his *Bṛhadyogatarāṅgī*,<sup>412</sup> Vācaspati in his *Ātaṅkadarpaṇa*,<sup>413</sup> Vāsudeva in his *Vāsudevānubhava*, Vijayarakṣita in the *Madhukośa*,<sup>414</sup> and Vopadeva in the *Siddhamantraprakāśa*.<sup>415</sup> Jaijñāta's commentary on the *Carakasamhitā* is quoted in the *Yogaratanākara*.<sup>416</sup> He is also quoted by the unknown author of the interpolated portion of Nīścala's *Ratnaprabhā*.<sup>417</sup>

Mahājāhnupati Vāhaṭa is mentioned as Jejjāta's teacher.<sup>418</sup> D.Ch. Bhattacharyya<sup>419</sup> regarded Mahājāhnu as a place-name, suggesting moreover that it survives in the name of a small town, called Majhanda, situated about fifty miles to the north of Hyderabad, on the west bank of the Indus. P.V. Sharma and G.P. Sharma,<sup>420</sup> on the other hand, consider Mahājāhnuvātī to be the name of a place in Kāśmīr.

Some identify Jejjāta's teacher with the famous medical author Vāgbhaṭa,<sup>421</sup> whereas others are opposed to this identification.<sup>422</sup> A South-Indian tradition makes Indu, who commented on Vāgbhaṭa's works, a fellow pupil of Jejjāta.<sup>423</sup>

Some adhere to the view that Jejjāta was the same as Jaiyāta, father of Kaiyāta, the author of the *Pradīpa* on the *Mahābhāṣya*, and Mammāta, who composed the *Kāvyaprakāśa*, but this hypothesis is rejected by others.<sup>424</sup>

Jejjāta's place of residence is a point of contention as well. Those who are in favour of the view that Jejjāta was a pupil of the medical author Vāgbhaṭa consider him to have resided, together with his teacher, in Sindh,<sup>425</sup> whereas others give preference to Kāśmīr.<sup>426</sup>

Jejjāta's faith is another controversial issue. Probably he was a Hindu and not, as advanced by some, a Buddhist.<sup>427</sup>

The following points have to be taken into consideration when trying to determine the period in which Jejjāta lived. Dr̥ḥabala and Bhāṭṭāraharaicandra preceded him because they are quoted. The same applies to Vāgbhaṭa, one of whose verses (A.s.Ni.2.96cd-97ab) is quoted (ad Ci.1<sup>3</sup>.32-35) as coming from another treatise (tantrāntara).<sup>428</sup> The claim that Jejjāta is later than Mādhava, the author of the *Rugviniścaya*, put forward by P.V. Sharma and G.P. Sharma,<sup>429</sup> is unfounded, since the quotation they refer to (ad Ci.3.51cd-52cd) does, contrary to their assertion, not occur in Mādhava's work; it forms part of the *Aṣṭāṅgasamgraha* (Ni.2.65), where it is said to be derived from Hārīta. Consequently, Jejjāta's terminus ad quem is about A.D. 600. Jejjāta is quoted or referred to by Gayadāsa (about A.D. 1000), Candraṭa (tenth century) and Vṛnda (about A.D. 900).

The chronological limits thus established, A.D. 600-900, can be narrowed down by a careful consideration of pieces of information provided by other commentators. A remark by Vijayarakṣita (ad *Mādhavanidāna* 22.70cd-72), who states that Kārttikakuṇḍa copied a particular interpretation of Jejjāta, proves that the latter preceded the former. Nīścalakara, who mentions Jejjāta and Kārttika together in a number of instances, places the latter always after the former. Vopadeva's commentary on the *Siddhamantra* (ad 122 and 123) contains clear indications on Jejjāta's anteriority to Vāpyacandra. A reference by Śrīkaṇṭhadatta (ad *Mādhavanidāna* 35.22d-24) to the views of Jejjāta and Gadādhara implies that the latter is later than Jejjāta.<sup>430</sup>

The anteriority of Jejjāta with regard to Gadādhara, Vāpyacandra and Kārttika-kunḍa appears to be confirmed by the order of the names of a series of commentators<sup>431</sup> on the *Suśrutasaṃhitā*, as given by Vijayarakṣita on two occasions: Jejjāta–Vāpyacandra–Mādhavakara–Kārttikakunḍa (ad *Mādhavanidāna* 1.5d–6), Jejjāta–Gadādhara–Vāpyacandra (ad *Mādhavanidāna* 1.11–13).<sup>432</sup>

A relative chronology has thus been obtained, which enables us to place the commentators Jejjāta, Gadādhara, Vāpyacandra, Mādhavakara and Kārttikakunḍa, the one following upon the other, in the period A.D. 600–900.<sup>433</sup> Unfortunately, the identity of the commentator Mādhavakara cannot be established with certainty; otherwise, if he were the same as the author of the *Mādhavanidāna*, the first three could be assigned to the period between A.D. 600 and the eighth century.

The relative chronological position of Jejjāta, however, makes it seem reasonable to place him in the seventh or, at the latest, the eighth century.<sup>434</sup> This does not disagree with the statement by P.V. Sharma and G.P. Sharma<sup>435</sup> that Jejjāta quotes Dharmakīrti's *Pramāṇavārttika*,<sup>436</sup> but excludes that he was the father of Kaiyaṭa and Mammaṭa.<sup>437</sup>

JINADĀSA was a commentator on the *Carakasamhitā*,<sup>438</sup> as appears from quotations in Śrīkaṇṭhadatta's commentary on the *Siddhayoga*<sup>439</sup> and Niścalakara's commentary on the *Cakradatta*.

Niścalakara had access to Jinadāsa's works. The *Ratnaprabhā* refers to Jinadāsa several times. The references and quotations indicate that he wrote a commentary on the *Carakasamhitā* and a treatise called *Karṇadaṇḍī*.<sup>440</sup>

Other works by this Jain author are a *Jambūsvāmicarita*<sup>441</sup> and a *Kalpabhāṣyacyūṭi*.<sup>442</sup>

Jinadāsa is said to have been a pupil of Pradyumnakṣama.<sup>443</sup> He is sometimes placed in the twelfth century,<sup>444</sup> but his terminus ante quem depends on that of Śrīkaṇṭhadatta. Jinadāsa is later than Jejjāta according to the references to him in Niścala's commentary on the *Cakradatta*.

JÑĀTĀDEVA, son of Kāśmīra Rudradeva, wrote the *Sārāthasamgraha*, which may be a commentary on the *Carakasamhitā*.<sup>445</sup>

JYOTIṢACANDRA SARASVATĪ<sup>446</sup> wrote a commentary, called *Carakapradīpikā*, on the *Sūtrasthāna* of the *Carakasamhitā*.<sup>447</sup> The views of Gaṇanāthasena are repeatedly referred to in this commentary.<sup>448</sup> The author was a Bengali.<sup>449</sup>

KĀRTTIKA(KUNḌA)<sup>450</sup> wrote, according to some scholars,<sup>451</sup> apart from his commentary on the *Suśrutasaṃhitā*, also one on the *Carakasamhitā*. Evidence in favour of this view is not available.

KṚṢṆA VAIDYA, also called KṚṢṆABHAṬṬA, is said to have written a commentary on the *Carakasamhitā*.<sup>452</sup> Kṛṣṇa Vaidya may be the father of Nāganātha, the author of the *Nidānapradīpa*, who probably lived in the fifteenth century.<sup>453</sup> Some assign him

to the eleventh century<sup>454</sup> and regard him as the father of Maheśvara, who wrote the *Viśvaprakāśa*<sup>455</sup> in 1111/12. Others suppose him to be Maheśvara's grandfather.<sup>456</sup>

KṢĪRASVĀMIDATTA<sup>457</sup> may have composed glosses on the *Carakasamhitā*, as appears from quotations by Jejjāta and Cakrapāṇidatta (ad Ca.Ci.4.93–94).<sup>458</sup> P.V. Sharma places him in the eighth century,<sup>459</sup> but he is probably earlier on account of Jejjāta's date.

MĀDHAVA, the author of the *Suśrutaślokaṽrttika*, is sometimes also regarded as a commentator on the *Carakasamhitā*.<sup>460</sup>

MAITREYA<sup>461</sup> was, according to P.V. Sharma,<sup>462</sup> probably a commentator on the *Carakasamhitā*. Vijayarakṣita mentions him as a medical author,<sup>463</sup> the *Bṛhannighaṇṭurātṇākara* as a commentator.<sup>464</sup> In the *Carakasamhitā* he is a sage whose views are opposed to those of Punarvasu Ātreya.<sup>465</sup> P.V. Sharma places him in the twelfth century.<sup>466</sup>

MEDHĀVIN is quoted as a commentator, probably on the *Carakasamhitā*, by Śrī-kaṇṭhadatta in the *Vyākhyākusumāvalī*.<sup>467</sup>

MUNIDĀSA is regarded as a commentator on the *Carakasamhitā* by P. Cordier.<sup>468</sup>

NĀGADEVA<sup>469</sup> is by some regarded as a commentator on the *Carakasamhitā*,<sup>470</sup> but the reference to him in Nīścala's *Ratnaprabhā*<sup>471</sup> points to him as the author of a commentary on the *Suśrutasaṃhitā*.<sup>472</sup>

NANDIN is mentioned as a commentator on the *Carakasamhitā* by Gayadāsa (ad Su. Ni.6.15–19). He also wrote a commentary on the *Suśrutasaṃhitā*.<sup>473</sup>

NARADATTA<sup>474</sup> was the author of a commentary on the *Carakasamhitā*.<sup>475</sup>

Naradatta is quoted by Nīścalakara as a commentator on the *Carakasamhitā*.<sup>476</sup> Naradatta's school of interpretation is referred to as Naradantavyākhyāsampradāya in the *Kusumāvalī*.<sup>477</sup> The same school of interpretation is quoted as the Naradevopadeśaparamparā by Nīścala.<sup>478</sup> The followers of Naradatta are cited by Nīścala as the naradattasampradāyinaḥ.<sup>479</sup> Cakrapāṇidatta is said to adhere to Naradatta's views.<sup>480</sup> The tippaṇī of a pupil of Naradatta (naradattaśiṣyaṭippaṇī) was also known to Nīścala.<sup>481</sup>

The references to Naradatta suggest that he wrote, apart from the commentary on the *Carakasamhitā*, a medical treatise. This work may have been the *Bṛhattantrapradīpa*, quoted by Nīścala. The authorship of this work is uncertain, since Nīścala only mentions its title, but it may well have been written by Naradatta, Cakrapāṇi's teacher, which would explain that Cakrapāṇi incorporated two recipes from the *Bṛhattantrapradīpa* in his *Cikitsāsamgraha*.<sup>482</sup> Nīścala mentions the *Bṛhattantrapradīpa*

twice in his commentary on the mukharoga chapter. He says that some verses of Cakṣuṣyeṇa are found in that work;<sup>483</sup> he also quotes it on the subject of a disorder called khaṇḍauṣṭha, described by Cakṣuṣyeṇa, Candraṭa, Nāgabhartṛ, Vāgbhaṭa, and in the *Carakottaratantṛa*, *Āyurvedasāra* and *Brhattantrapradīpa*.<sup>484</sup>

The *Brhattantrapradīpa* is a work of Naradatta according to G. Hāldār.<sup>485</sup> P.V. Sharma, who regarded it as a work of Naradatta in an earlier publication,<sup>486</sup> changed his opinion and attributes it to Bhavyadatta in his edition of Niścalakara's *Ratna-prabhā*.<sup>487</sup>

A treatise called *Tantrapradīpa*, quoted by Niścala<sup>488</sup> in his comments on the same chapters which mention the *Brhattantrapradīpa*, might well turn out to be the same work. A *Tantrapradīpa* is also quoted by Śivadāśasena.<sup>489</sup>

Naradatta was Cakrapāṇidatta's teacher,<sup>490</sup> which fixes his chronological position.

NARASIMHAKAVIRĀJA wrote a commentary on the *Carakasamhitā*, called *Carakata-tvaprakāśakaustubhaṭīkā*. The author refers to this commentary in the one he wrote on the *Mādhavanidāna*.<sup>491</sup>

PATAÑJALI is by some regarded as the author of a *Carakavārttika*.<sup>492</sup>

SADĀNANDA wrote a commentary, called *Auśadhavivṛti*, on the chapters of the *Carakasamhitā* containing rules for the preservation of health (svasthavṛtti).<sup>493</sup>

SAINDHAVA was a commentator on the *Carakasamhitā* according to Cakrapāṇidatta, who mentions him in the series Aṅgiri-Saindhava-Jejjaṭa-Īśvarasena (Si.1.20cd-22ab).<sup>494</sup>

SAMDHYĀKARA is a commentator on the *Carakasamhitā*<sup>495</sup> who is quoted by Niścalakara.<sup>496</sup>

ŚIVADĀSASENA<sup>497</sup> wrote a commentary, called *Carakatattvapradīpikā*,<sup>498</sup> on the *Carakasamhitā*.<sup>499</sup> The part dealing with Sūtrasthāna 1.1 to 26.58 has been preserved,<sup>500</sup> but, originally, it must have covered the whole of the samhitā.<sup>501</sup>

Śivadāśasena's commentary is in general based on Cakrapāṇidatta's *Āyurvedadīpikā*, but he deviates from it repeatedly, which makes the work interesting and valuable. He refers to the views of his father, Anantasena, who was his teacher in āyurveda, adds quotations to those found in the commentary by Cakrapāṇidatta, and cites, since he is later than Cakrapāṇi, commentators like Aruṇadatta and Vijayarakṣita.

The *Carakatattvapradīpikā* is several times referred to in Śivadāśasena's commentary on the *Cakradatta* and twice in his commentary on Cakrapāṇidatta's *Dravyaguṇasaṃgraha*, which proves that it was composed before the latter two works.

Authorities and works quoted or referred to by name in the *Carakatattvapradīpikā* are:<sup>502</sup> Ācārya (1.45 and 50; 10.5; 11.41), Āgama (1.48; 8.19 and 20), Agniveśa (1.1, 2, 30-31; 26.53-57ab), Amara (4.17; 16.1-2; 21.50), Aruṇa(datta) (1.2 and 24; 5.15; 8.19; 11.34-35), Ātmatattvaviveka (by Udayana) (16.34-36), Ātreya (1.2

and 30–31), Atri (1.2), Bharadvāja (1.3, 18cd–23, 24, 25–26, 27–29, 30–31; 13.3), Bhāṣya (by Praśastapāda) (1.44 and 50), Bhaṭṭāra(haricandra) (1.66; 6.49 and 50), Bhaṭṭāraharicandra (5.13),<sup>503</sup> Bhela (2.15), Brahmadeva (1.24), Cakra (1.50, 51, 64, 66; 4.5; 5.71cd–76ab; 6.50; 11.34–35), Caraka (4.16; 13.18; 22.34–37), Cakṣuṣyena (5.49cd–51ab), Dṛḍhabala (6.4; 13.51 and 65–69; 17.62), gauḍīyāḥ (3.3–17),<sup>504</sup> Haricandra (7.45–50; 13.19),<sup>505</sup> Hārīta (1.30–31), Jātūkarṇa (1.44; 2.18–33; 4.12 and 17; 5.49cd–51ab and 63cd–71ab), Jejjata (6.4), *jyotiḥśāstra* (5.95–102), *Kaṇādasūtra* (1.45; 11.12), Kapilabala (7.45–50), Karāla (5.49cd–51ab), kāśmīrāḥ (3.3 and 13–17; 5.49cd–51ab), *Kāśyapīya* (6.4), kṣanabhaṅgavādin (16.34–36), kṣanabhaṅgavādināḥ (1.1),<sup>506</sup> Kṣāra(pāni) (8.18), Medinī (1.2, 24, 25–26; 7.39–40; 8.18 and 27; 12.8; 15.11), *Nāgārjunatantra* (21.21–28),<sup>507</sup> *Nyāyavārtikatātparyatīkā* (11.21–22),<sup>508</sup> piṭṭ-caraṇāḥ (1.2, 50, 51, 64; 5.49cd–51ab and 71cd–76ab; 7.45–50; 25.45–47),<sup>509</sup> Prāñca (10.5),<sup>510</sup> *Purāṇa* (1.59–61), ṛjavaḥ (1.1), Rudramiśra (1.57; 5.15<sup>512</sup>),<sup>513</sup> *Śālākya* (5.16–18ab and 26cd–27ab), Śālihotra (14.16), *Sāṃkhya* (19.6), *Sāṃkhya(kārikā)* (1.43), saugatāḥ (16.27), *Smṛti* (1.1), *sūdaśāstra* (15.16), Suśruta (many times), Svabhūti (8.19),<sup>514</sup> *tantrāntara* (13.18 and 65–69; 17.73–75; 24.25–29; 26.57cd–58), *Tattvakaumudī* (11.21–22),<sup>516</sup> Vāgbhaṭa (many times), *Vaiśeṣika* (1.42 and 50),<sup>517</sup> Vijayarakṣita (1.57), *Vṛddhasuśruta* (13.29–40), vṛddhavaidyāḥ (2.18–33; 13.65–69; 20.20–22), and Vyāsa (1.3).

Many quotations and references are also found in Cakrapāṇidatta's commentary. Śivādāsasena adds quotations from well-known authorities<sup>518</sup> and mentions sources which are absent from the *Āyurvedadīpikā*.<sup>519</sup>

Anonymous quotations are frequent and have only in part been traced.<sup>520</sup> Usually, Śivādāsasena agrees with Cakrapāṇidatta, but on several occasions he disagrees with him,<sup>521</sup> preferring the views of Vāgbhaṭa<sup>522</sup> and their interpretation by Aruṇadatta,<sup>523</sup> or those of Anantasena, his father and teacher.<sup>524</sup> On other occasions he rejects Vāgbhaṭa<sup>525</sup> or does not decide, regarding a series of contradictory statements as equally authoritative.<sup>526</sup> Of special interest are Śivādāsasena's expositions on the nature of the doṣas,<sup>527</sup> as well as those on taste (rasa)<sup>528</sup> and vipāka.<sup>529</sup> He distinguishes between two types of health (ārogya)<sup>530</sup> and describes three types of koṣṭha, adding a group of persons with a madhyakoṣṭha to those with a mṛdu- and krūrakoṣṭha.<sup>531</sup>

ŚIVADĀSA(SENĀ)<sup>532</sup> was the author of commentaries on the *Carakasamhitā* (called *Tattvapradīpikā*), Uttarasthāna of the *Aṣṭāṅgaḥṛdayasamhitā* (called *Tattvabodha*), Cakrapāṇidatta's *Cikitsāsaṃgraha* (called *Tattvacandrikā*), and the latter's *Dravyaguṇasaṃgraha*.<sup>533</sup>

Śivādāsasena was the son of Anantasena, son of Uddharāṇa, son of Lakṣmīdharasena, son of Kākutsthasena, son of Sāhisena,<sup>534</sup> who lived at the court of Śikhareśvara<sup>535</sup> and acquired fame as a poet. This is the information given by Śivādāsasena at the end of three of his four commentaries.<sup>536</sup> He adds the name of his mother, Bhairavī, to that of his father in the introductory verses of two of his commentaries.<sup>537</sup>

Śivādāsa also tells us that his father was an expert in Vaiśeṣika, Sāṃkhya and Āyurveda,<sup>538</sup> lived in Mālañcīkā,<sup>539</sup> and held the position of court physician (antarāṅgapadavī) to Bārbak Sāh, ruler of Bengal (Gauḍa), who presented him with a

ceremonial parasol (chattrā).<sup>540</sup> Śivadāsa was trained in āyurveda and other sciences by his father,<sup>541</sup> to whom he repeatedly refers in his commentary on the Sūtrasthāna of the *Carakasamhitā*.

Mālañcīkā may have been situated in the area of Kocbihār, Raṅgpur and Rājśāhī,<sup>542</sup> in the Pavanā (Pāvnā) district of Vārendra.<sup>543</sup>

In spite of his name, Śivadāsasena may have been a devotee of Viṣṇu.<sup>544</sup>

The chronological position of Śivadāsasena depends on the dates of the reign of Bārbak Shāh, given by some authors as 1457–1474.<sup>545</sup> Śivadāsa may therefore have been active as an author during the last quarter of the fifteenth century.<sup>546</sup>

An unspecified work of Śivadāsasena is quoted in Śivamiśra's *Vaidyaśāstraśivānubandha*.

ŚIVASAINDHAVA is sometimes regarded as a commentator on the *Carakasamhitā*.<sup>547</sup>

ŚRĪKAṆṬHA is by some<sup>548</sup> regarded as a commentator on the *Carakasamhitā*.

SUDĀNTASENA is sometimes mentioned as a commentator on the *Carakasamhitā*.<sup>549</sup>

SUDHĪRA, who commented on the *Suśrutasaṃhitā*, may have written a commentary on the *Carakasamhitā* too.<sup>550</sup>

SVĀMIDĀSA'S commentary<sup>551</sup> on the *Carakasamhitā* is referred to by Cakrapāṇidatta in his *Āyurvedadīpikā*,<sup>552</sup> Gayadāsa in his commentary on the *Suśrutasaṃhitā*,<sup>553</sup> and Jejjāta.<sup>554</sup> Vijayarakṣita (ad *Mādhavanidāna* 1.14cd–15ab) mentions him, together with Aśādhadharmā, as an early commentator. Nīśalakara mentions Svāmīdāsa, together with Īśvarasena, as an author who distinguished twenty-five kṣayaja diseases.<sup>555</sup> He is, finally, also quoted or referred to by Śivadāsasena.<sup>556</sup> Svāmīdāsa is earlier than Jejjāta since the latter quotes him. Svāmīdāsa is sometimes considered to be identical with Svāmikumāra.<sup>557</sup>

SVĀMIKUMĀRA<sup>558</sup> wrote a commentary on the *Carakasamhitā*. A small portion of this *Pañjikā*<sup>559</sup> has been preserved.<sup>560</sup> In the introductory verses the author pays homage to several deities, as well as to Bharadvāja, Ātreya and Agniveśa. The maṅgala shows that he was a Śaiva.<sup>561</sup> Svāmikumāra was perhaps the first author to confuse Caraka and Patañjali.<sup>562</sup> According to P.V. Sharma he may have lived in Avanti.<sup>563</sup>

Svāmikumāra states that he consulted Hariścandra's commentary before starting to write his own and repeatedly quotes from it;<sup>564</sup> for his part, Svāmikumāra is quoted by Jejjāta; he is therefore later than Hariścandra and earlier than Jejjāta.<sup>565</sup> An unsolved problem is whether a commentator called Svāmīdāsa<sup>566</sup> is the same as Svāmikumāra or not.<sup>567</sup> It has been suggested that one of the pañjikākāras, mentioned by Ḍaḥaṇa, may be Svāmikumāra,<sup>568</sup> and that he also may be identical with an Indian physician, called Kumārabhaṭṭa, who became a popular teacher of āyurveda in Thailand.<sup>569</sup>

VĀCASPATĪ is by some<sup>570</sup> regarded as the author of a commentary on the *Carakasamhitā*.

VAIṢṆAVA is sometimes regarded as a commentator on the *Carakasamhitā*.<sup>571</sup>

VAṄGASENA, the author of the *Cikitsāsārasaṃgraha*, is occasionally regarded as a commentator on the *Carakasamhitā*.<sup>572</sup>

VĀPYACANDRA,<sup>573</sup> also called Bāṣpacandra,<sup>574</sup> was, as appears from quotations, a commentator on the *Carakasamhitā*.

Vāpyacandra is quoted by Gopāladāsa in his *Cikitsāsmṛta*, Hemādri,<sup>575</sup> Kṛṣṇadatta in his commentary on Trimalla's *Śataśloki*, Lakṣmīrāma in his commentary on the *Siddhabhṛṣajamaṇimālā*,<sup>576</sup> Meghadeva in his commentary on the *Mādhavadra-vyaguṇa*, Nāganātha in his *Nidānapradīpa*, Narahari in his *Vāgbhaṭamaṇḍana*,<sup>577</sup> Narasiṃha in his commentary on the *Mādhavanidāna*, Nīścalakara,<sup>578</sup> Śivadatta in the commentary on his *Śivakośa*,<sup>579</sup> Śivadāśasena in his commentary on Cakrapānidatta's *Dravyaguṇa*,<sup>580</sup> Śrīkaṇṭhadatta in the *Madhukośa*<sup>581</sup> and *Kusumāvalī*,<sup>582</sup> Vācaspati in his *Ātaṅkadarpaṇa*,<sup>583</sup> Vijayarakṣita in the *Madhukośa*,<sup>584</sup> and Vopadeva in his *Siddhamantraprakāśa*.<sup>585</sup> Vāpyacandra is mentioned as a commentator in the *Bṛhannighaṇṭuratanākara*.<sup>586</sup>

Vāpyacandra may also have commented on the *Suśrutasaṃhitā*,<sup>587</sup> but the claim of some scholars that he wrote a commentary on the *Aṣṭāṅgaḥṛdayasaṃhitā* is unfounded.<sup>588</sup> A *Bāṣpacandratantra*, the nature of which is unknown, seems to have existed in former years.<sup>589</sup> Some scholars assume that Vāpyacandra composed a nighaṇṭu,<sup>590</sup> because a number of quotations, found in particular in the *Siddhamantraprakāśa*, elucidate the nature and properties of medicinal substances. In favour of the view that Vāpyacandra wrote a nighaṇṭu is the fact that some of these quotations are in verse.<sup>591</sup>

The upper limit of Vāpyacandra's date is provided by the earliest authors to quote him, Vijayarakṣita and Śrīkaṇṭhadatta. The lower limit can be deduced from the *Siddhamantraprakāśa* in which Vopadeva twice states that Vāpyacandra disagrees with Jejjāta, which means that he is later than the latter. Vāpyacandra's posteriority to Jejjāta is probably confirmed by Vijayarakṣita who, on two occasions, mentions a series of commentators who may have been put in chronological order: Jejjāta–Vāpyacandra–Mādhavakara–Kārttikakuṇḍa,<sup>592</sup> and Jejjāta–Gadādhara–Vāpyacandra.<sup>593</sup> The correctness of the hypothesis of a chronological order would narrow down the chronological position of Vāpyacandra in making him later than Gadādhara<sup>594</sup> and earlier than Kārttikakuṇḍa. Two quotations, found in the *Kusumāvalī*, suggest that Vāpyacandra preceded Cakrapānidatta.<sup>595</sup>

The most probable conjecture concerning Vāpyacandra's date is that he lived in the seventh or eighth century.<sup>596</sup>

VR̥NDA is sometimes said to have written a commentary on the *Carakasamhitā*.<sup>597</sup>

YOGĪNDRANĀTHASENA wrote a commentary, called *Carakopaskāra*, on part of the *Carakasamhitā* (Sū.1–Ci.20).<sup>598</sup> It is written in simple Sanskrit,<sup>599</sup> follows in its explanations Caraka's text word for word<sup>600</sup> and analyses each compound. Yogīndranā-

tha sometimes agrees in his interpretations with Cakrapāṇidatta,<sup>601</sup> sometimes with Gaṅgādharma;<sup>602</sup> at other places he tries to synthesize their views<sup>603</sup> or gives his own opinion.<sup>604</sup> On rare occasions the Bengali equivalents of the names of medicinal substances are mentioned.<sup>605</sup>

Authors and works quoted or referred to in vols. I and II are: *Aṣṭāṅgaḥṛdaya-saṃhitā* (passim), *Aṣṭāṅgasamgraha* (passim), *Bhagavadgītā* (1138: Śā.1.37; 1147: Śā.1.65),<sup>606</sup> *Bhāṣāpariccheda* (20: Sū.1.48; 28: 1.59),<sup>607</sup> *Bhāvaprakāśa* (11: Sū.1.28–29; 40: 1.93–94; 72: 3.21; 624: 27.8–10; 626: 27.15; 646: 27.88cd–89ab), Bhela (many times), Caraka (passim), *Gautamasūtra* (260: Sū.11.20; 1055: Vi.8.39),<sup>608</sup> *Īśvarakṛṣṇa* (256: Sū.11.8),<sup>609</sup> *Kātyāyana* (203: Sū.8.18), *Kṣārapāṇi* (203: Sū.8.18), *Kusumāñjali* (1142: Śā.1.48),<sup>610</sup> *Mādhavanidāna* (68: Sū.3.7; 86: Sū.4.8), *Nyāyadarśana* (many times), *Nyāyasūtra* (762: Sū.30.17–19), Pāṇini (many times), *Pātañjala* (6: Sū.1.8–14; 1150: Śā.1.70–72),<sup>611</sup> *Pulastya* (204: Sū.8.18), *Rājanighaṇṭu* (37: Sū.1.81–85; 56: Sū.2.9–10; 57: Sū.2.11–13; 61: Sū.2.23; 99: Sū.4.16; 623: Sū.27.8–10), *Sāṃkhyadarśana* (25: Sū.1.56), *Sāṃkhyakārikā* (1135: Śā.1.25–26; 1148: Śā.1.66–67), *Siddhayoga* (73: Sū.3.23), *Sūryasiddhānta* (146: Sū.6.4), *Suśruta* (passim), *Suśrutakā* (446: Sū.19.4),<sup>612</sup> *Vāgbhaṭa* (passim), *Vaiśeṣika* (many times), *Vāstuvidyā* (342: Sū.14.46), *Vedāntabhāṣya* (2: Sū.1.1),<sup>613</sup> *Viśvanāthakārikā* (1132: Śā.1.18–19),<sup>614</sup> *Vṛddhavāgbhaṭa* (passim), *Vṛnda* (66: Sū.3.4), and *Yogadarśana* (264: Sū.11.28–29).<sup>615</sup>

Yogīndranātha's *Carakopaskāra* is quoted in Priyavrat Śarmā's auto-commentary on the *Āyurvedadarśana*.

Yogīndranāthasena was born in 1871 as the eldest son of Mahāmahopādhyāya Kavirāja Dvārakānāthasena,<sup>617</sup> one of the pupils of Gaṅgādharma.<sup>618</sup> He studied āyurveda under his father and came to be recognized as one of the foremost āyurvedic physicians of India, the first one upon whom the title of Vaidyaratna was conferred by the Government of India in 1922. He died in 1931.<sup>619</sup>

ANONYMOUS COMMENTARIES on the *Carakasamhitā* are recorded in MSS catalogues.<sup>620</sup>



Part 2

Suśrutasamhitā



## Chapter 1

### Sūtrasthāna<sup>1</sup>

Chapter one, called vedotpatti, begins, like the *Carakasamhitā*, with a story concerning the origin (utpatti)<sup>2</sup> of (āyur)veda.

A group of sages, desirous of being helpful to human beings afflicted by diseases, and wanting to preserve their own health,<sup>3</sup> approaches Divodāsa, king of Kāśī, (an incarnation of) Dhanvantari,<sup>4</sup> with the request to teach them the science of āyurveda. This group consists of Aupadhenava, Vaitaraṇa, Aurabhra, Pauṣkalāvata, Karavīra, Gopurarakṣita, Suśruta, and others (1.1–4).

Dhanvantari complies and relates that Svayambhū (= Brahmā), even before creating mankind, composed the āyurveda, which forms one of the upāṅgas of the *Atharva-veda*,<sup>5</sup> in one hundred thousand verses, arranged in thousand chapters; in consideration of the short life span and restricted intelligence of men, he recast it into the following eight divisions: śalya, śālākya, kāyacikitsā, bhūtaavidyā, kaumārabhṛtya, agadatantra, rasāyanatantra, and vājīkaraṇatantra (1.5–8).<sup>6</sup>

All the sages express the wish to receive, first of all, instruction in śalya; Suśruta is appointed as the one to ask questions, while the others will listen attentively to Dhanvantari's answers (1.9–13).

Dhanvantari begins his teaching by expounding the object (prayojana) of āyurveda: making the diseased free from disease and preserving the health of the sound; he also explains the etymology of āyurveda (1.14–15). He announces that his instruction will be in conformity with pratyakṣa (perception), āgama (authoritative scripture), anumāna (inference), and upamāna (analogy) (1.16).<sup>7</sup>

Śalya is declared to hold the foremost place among the branches of āyurveda, because it was applied, on the occasion of Dakṣa's<sup>8</sup> sacrifice, with a view to the healing of the wounds inflicted and the restoration of the head of the sacrifice.<sup>9</sup> It is pre-eminent too on account of its quick action, owing to the use of sharp and blunt instruments (śastra, yantra), caustics (kṣāra), and cautery (agni) (1.17–18).

Brahmā was the first to promulgate āyurveda; from him Prajāpati learnt it, from Prajāpati the Aśvins, from the Aśvins Indra, from Indra myself (i.e., Dhanvantari) (1.20). A verse follows, in which Dhanvantari, who calls himself Ādideva,<sup>10</sup> announces to have appeared on the earth in order to teach surgery, as well as the other branches of medical science (1.21).

In this science, the puruṣa is the living body, composed of the five mahābhūtas. The world is divisible into beings that cannot move (sthāvara) and those that move about (jāṅgama), into fiery (āgneya) and cool (saumya) substances, into substances with a

preponderance of one of the mahābhūtas, and into four classes of beings: saṃśvedaja, jarāyuja, aṇḍaja, and udbhijja<sup>11</sup> (1.22).

The four classes of diseases are defined: āgantū, śārīra, mānasa, and svābhāvika (1.23–26).<sup>12</sup> The means for checking diseases are saṃśodhana, saṃśamana, (rules regarding) diet (āhāra), and (rules regarding) conduct (ācāra) (1.27).

Medicinal substances (oṣadhi) derive from immobile (sthāvara) and mobile (jaṅgama) living beings (1.28). The immobile class consists of the types called vanaspati, vṛkṣa, vīrudh, and oṣadhi; their characteristics are given (1.29).<sup>13</sup> The four classes of mobile beings are enumerated again<sup>14</sup> and examples are given (1.30). The parts of these beings used as medicinal substances are mentioned (1.31). Inorganic (pārthiva) substances are listed (1.32). The importance of the divisions of time for medicine is discussed (1.33–34).

The subjects dealt with so far are summarized (1.35–38). A more detailed exposition of the therapeutic science, in one hundred and twenty chapters, will now follow. It is divided into five sections: Sūtra-, Nidāna-, Śārīra-, Cikitsita- and Kalpasthāna; the remaining subjects will be dealt with in the Uttaratāntra (1.39–40).

Chapter two (śiṣyopanayanaīya) describes the initiation of a student.<sup>15</sup>

Chapter three (adhyayanasaṃpradānīya) gives a table of contents (3.3–45).<sup>16</sup>

The necessity of both theoretical instruction and practical training in the eight-limbed science of medicine, revealed by Ādideva, is stressed (3.46–53). The chapter ends with instructions regarding the method of study (3.54–56).

Chapter four (prabhāṣaṇīya) is about the importance of correctly understanding the text of the treatise and its terminology. The textbooks called Aupadhenava, Aurabhra, Sauśruta and Pauṣkalāvata after their authors are mentioned as the basic surgical treatises (4.9).

Chapter five (agropaharaṇīya) is concerned with the arrangements preliminary to surgical interventions.

Surgical treatment (karman) consists of three stages: pūrvakarman (preliminary measures), pradhānakarman (principal measures) and paścātkarman (after-treatment)<sup>17</sup> (5.3). Surgical procedures (śastrakarman) are of eight kinds: chedya (excision), bhedyā (incision), lekhyā (scarification), vedhyā (puncturing), eṣyā (probing), āhāryā (extraction), visrāvya (drainage), and sīvya (suturing)<sup>18</sup> (5.5).

The items of the equipment to be collected before performing any of these interventions, and the nursing staff, are dealt with (5.6).

The proper way of draining (an abscess) is described (5.7), followed by the characteristics of a good incision (5.8–9), praiseworthy qualities of a surgeon (5.10), the proper way of making a counter-incision (in order to assure complete drainage) (5.11) or multiple incisions (5.12). Places where an oblique or curved incision should be made are listed (5.13–14). The bad effects of an improper incision are dealt with (5.15).

Pre-and post-operative measures are discussed (5.16–17), followed by fumigation

(dhūpana; 5.18),<sup>19</sup> and protective mantras to be used in a ritual called rakṣākarma (5.19–33).<sup>20</sup>

The remaining part of the chapter is devoted to after-treatment, in particular wound dressing and the change of dressings (5.34–42).

Chapter six (ṛtucaryā) discusses seasonal regimen.<sup>21</sup>

The chapter begins with an enumeration of the units of time:<sup>22</sup> akṣinimeṣa (the time required to pronounce a short syllable),<sup>23</sup> kāṣṭhā,<sup>24</sup> kalā,<sup>25</sup> muhūrta,<sup>26</sup> ahorātra (a day and a night),<sup>27</sup> pakṣa (a fortnight), and māsa a (month) (6.4–5).<sup>28</sup>

Thetwelve months, beginning with Māgha, make up six seasons,<sup>29</sup> each consisting of two months: śiśira (the cool season) consists of Tapas (= Māgha) and Tapasya (= Phālguna), vasanta (the spring) of Madhu (= Caitra) and Mādhava (= Vaiśākha), grīṣma (the summer) of Śuci (= Jyeṣṭha or Āṣāḍha) and Śukra (= Āṣāḍha or Jyeṣṭha),<sup>30</sup> varṣāḥ (the rainy season) of Nabhas (= Śrāvaṇa) and Nabhasya (= Bhādrapada), śarad (the autumn) of Iṣa (= Āśvina) and Ūrja (= Kārttika), and hemanta (the winter) of Sahas (= Mārgaśīrṣa) and Sahasya (= Pauṣa) (6.6).<sup>31</sup>

The year is divided into two halves, called after the direction of the sun's course (ayana); the southern course (dakṣiṇāyana) covers varṣāḥ, śarad and hemanta, the northern course (uttarāyana) śiśira, vasanta and grīṣma; the moon and the corresponding tastes are strong during the dakṣiṇāyana, the sun and the corresponding tastes during the uttarāyana (6.7–8).<sup>32</sup> The two ayanas together make one year; five years make one yuga. Some refer to this whole series of divisions of time as the kālacakra (wheel of time) (6.9).

In this treatise, with regard to the seasonal variations of the doṣas, the seasons are arranged thus: varṣāḥ, consisting of Bhādrapada and Āśvayuja (= Āśvina), śarad, consisting of Kārttika and Mārgaśīrṣa, hemanta, consisting of Pauṣa and Māgha, vasanta, consisting of Phālguna and Caitra, grīṣma, consisting of Vaiśākha and Jyeṣṭha, and prāvr̥ṣa (the early rainy season), consisting of Āṣāḍha and Śrāvaṇa (6.10).<sup>33</sup>

The effects of the seasons on the doṣas are described. Pitta accumulates (saṁcaya) during the rains and gets excited (prakopa) in the autumn; śleṣman (= kapha) accumulates in the winter and gets excited in the spring; vāyu accumulates in the summer and gets excited during the early rains (6.11). These accumulated and excited doṣas ought to be eliminated (6.12). The diseases caused by pitta subside naturally (svabhāvatas) in the winter, those by śleṣman in the summer (nidāgha), those by vāta in the autumn (6.13). The divisions of day and night have characteristics similar to the seasons: the forenoon (pūrvāhna) is the analogue of the spring, the noon (madhyāhna) of the summer, the afternoon (aparāhna) of the early rains, the dusk (pradoṣa) of the rainy season, the midnight (ardharātra) of the autumn, the dawn (pratyuṣas) of the winter (6.14). Irregularities in the seasons, due to fate (adr̥ṣṭa),<sup>34</sup> cause various diseases or epidemics (maraka) (6.16–17). Sometimes, even when the seasons are regular, the people of a country may suffer through sorcery (kṛtyā), curses (abhiśāpa), the wrath of a rakṣas, or adharma.<sup>35</sup> Other causes are the exhalations of poisonous flowers, the noxious influences of planets (graha) and asterisms (nakṣatra),<sup>36</sup> and inauspicious omina (6.19).<sup>37</sup> The measures to be taken in such cases are listed (6.20).

The characteristics of the normal seasons are described, beginning with the winter and ending with the autumn (6.21–36).<sup>38</sup>

Chapter seven (yantravidhi) is devoted to the blunt instruments (yantra).<sup>39</sup>

The number of blunt instruments is one hundred and one; the most important among them is the hand (7.3). Śalyas cause injury (ābādha) to body and mind; yantras are the means of their removal (āharaṇa) (7.4). The yantras are of six types: svastikayantra (cruciform), saṃdamśayantra (pincer-like), tālayantra (picklock-like or spoon-shaped), nāḍīyantra (tubular), śalākāyantra (rod-like),<sup>40</sup> and upayantra (an accessory instrument) (7.5). There are twenty-four varieties of svastikayantra,<sup>41</sup> two saṃdamśayantras,<sup>42</sup> two tālayantras,<sup>43</sup> twenty varieties of nāḍīyantra,<sup>44</sup> twenty-eight varieties of śalākāyantra,<sup>45</sup> and twenty-five upayantras<sup>46</sup> (7.6). As a rule, they are made of iron (lauha), or, when it is not available, of its substitutes (7.7).<sup>47</sup> Their shape in general and the qualities required are mentioned (7.8–9).

The twenty-four svastikayantras are described; their mouth parts resemble the snout or beak of twenty-four different animals and birds: siṃha, vyāghra, vṛka, tarakṣu, rkṣa, dvīpin, mārjāra, śṛgāla, mṛgairvāruka, kāka, kaṇṭika, kurara, cāṣa, bhāsa, śaśaghātina, ulūka, cilli, śyena, grdhra, krauñca, bhṛṅgarāja, añjalikarṇa, avabhañjana, and nandīmukha;<sup>48</sup> they are used for removing a śalya from within a bone (7.10). The two saṃdamśayantras are described; they are provided with a catch (nigraha) or without it;<sup>49</sup> they are employed in the extraction of śalyas from the skin, muscles, sirās and snāyus (7.11).<sup>50</sup> The two tālayantras, with one blade (tālaka) or two blades, are useful in the removal of śalyas from the passages of the ears and the nose (7.12). The nāḍīyantras are of many varieties and applied for various purposes (7.13). The many śalākāyantras and their various uses are described (7.14). The upayantras are listed (7.15).<sup>51</sup>

The twenty-four uses of yantras are dealt with : nirghātana (wrenching out), pūraṇa (filling, with oil, etc.), bandhana (bandaging), vyūhana (retraction),<sup>52</sup> vartana (approximation), cālana (displacement), vivartana (turning round),<sup>53</sup> vivaraṇa (dilatation),<sup>54</sup> pīḍana (squeezing), mārgaviśodhana (clearing passages), vikarṣaṇa (loosening), āharaṇa (extraction), āñchana (traction), unnamana (elevation), vinamana (depression), bhañjana (breaking),<sup>55</sup> unmathana (stirring with a probe), ācūṣaṇa (suction), eṣaṇa (probing), dāraṇa (splitting), ṛjūkaraṇa (straightening), prakṣālana (irrigation), pradhamana (insufflation), and pramārjana (mopping up) (7.17).

The twelve defects of a yantra are enumerated (7.19). The ideal yantra is characterized (7.20). Some general guidelines are given (7.21). The kaṅkamukhayantra (one of the svastikayantras) is praised as the foremost among the yantras (7.21).<sup>56</sup>

Chapter eight (śastrāvacāraṇīya)<sup>57</sup> is devoted to the twenty sharp instruments (śastra).<sup>58</sup>

This group consists of: maṇḍalāgra (circular-headed),<sup>59</sup> karapattra (saw),<sup>60</sup> vṛddhi-pattra (scalpel),<sup>61</sup> nakhaśastra (nail-parer),<sup>62</sup> mudrikā (ring knife),<sup>63</sup> utpalapattra (lancet),<sup>64</sup> ardhadhāra (single-edged knife),<sup>65</sup> sūcī (suturing needle),<sup>66</sup> kuṣapattra (bistoury),<sup>67</sup> āṭīmukha (āṭī-bill scissors),<sup>68</sup> śārārimukha (śārāri-bill scissors),<sup>69</sup> anta-

rmukha (curved bistoury),<sup>70</sup> trikūrcaka,<sup>71</sup> kuṭhārikā,<sup>72</sup> vrīhimukha (trocar),<sup>73</sup> ārā (awl),<sup>74</sup> vetasapattraka (a kind of scalpel),<sup>75</sup> baḍiśa (a sharp hook),<sup>76</sup> dantaśaṅku (tooth-scaler),<sup>77</sup> and eṣaṇī (a sharp probe) (8.3).<sup>78</sup>

Maṇḍalāgra<sup>79</sup> and karapattrā are used for chedana (excision) and lekhaṇa (scarification, scraping); vṛddhipattrā,<sup>80</sup> nakhaśāstra, mudrikā, utpalapattraka and ardhadhāra for chedana and bhedana (incision); sūcī,<sup>81</sup> kuśapattrā,<sup>82</sup> ātīmukha, śarārimukha, antarmukha and trikūrcaka for visrāvaṇa (drainage); kuṭhārikā,<sup>83</sup> vrīhimukha,<sup>84</sup> ārā,<sup>85</sup> vetasapattraka and sūcī<sup>86</sup> for vyadhana (puncturing); baḍiśa<sup>87</sup> and dantaśaṅku for āharaṇa (extraction); the eṣaṇī<sup>88</sup> for eṣaṇa (probing) and ānulomya,<sup>89</sup> the sūcī for sīvana (suturing) (8.4).

The correct ways of handling the śāstras are described (8.5), the way they are named (8.6), their sizes (8.7), their qualities (8.8) and defects (8.9), and the thickness of their edges (dhārā) (8.10). The shapes of baḍiśa, dantaśaṅku and eṣaṇī are dealt with (8.11).

Three kinds of tempering (pāyanā) are described: by means of caustics (kṣāra), water, and oils; the purposes of śāstras tempered in a particular way are enumerated (8.12).<sup>90</sup>

Śāstras should be sharpened with a smooth stone (ślakṣṇaśīlā);<sup>91</sup> their edges should be smoothened with a piece (phalaka) of śālmālī wood (8.13).

Accessory śāstras (anuśāstra)<sup>92</sup> are the following: bamboo (tvakṣāra), sphatika (quartz), glass (kāca),<sup>93</sup> kuruvindā,<sup>94</sup> leeches, fire, caustics, the nails, leaves of gojī, śephālīkā and śāka, (the shoots of) karīra,<sup>95</sup> hairs, and the fingers (8.15). Their uses are specified (8.16–19a). A wise (physician) should get the sharp instruments of pure<sup>96</sup> iron<sup>97</sup> (āyasa) manufactured by a skillful<sup>98</sup> and experienced blacksmith (karmāra)<sup>99</sup> (8.19b-f).

Chapter nine (yogyāsūtrīya) is about the practical training in surgical operations.<sup>100</sup> The importance of the acquisition of practical skills, next to study of the textbooks, is stressed (9.3). Objects on which to practise excision, incision, etc., are enumerated (9.4).<sup>101</sup>

Chapter ten (viśikhānupraveśanīya)<sup>102</sup> gives general directions for visiting a patient.<sup>103</sup> A fully qualified physician should, after obtaining royal permission, go to visit his patients, appropriately dressed,<sup>104</sup> without ostentation, friendly inclined, etc. (10.3). At a time when the signs regarding the messenger (dūta)<sup>105</sup> and the various kinds of omina<sup>106</sup> are auspicious, he should make his way to the patient's house and examine him by inspection, palpation and interrogation. Some say that this is usually sufficient,<sup>107</sup> which, however, is not correct. There are six ways of obtaining knowledge about diseases (vijñānopāya): the five senses and interrogation (10.4). The signs discernible by each of the senses and the information obtainable by questioning are dealt with in more detail (10.5).<sup>108</sup>

After carrying out this examination completely, the physician should cure the curable ones and give palliative treatment to the palliable ones; incurable ones should not be treated, and pathological conditions that have persisted for more than a year should,

as a rule, be avoided (10.6). A summarizing verse follows (10.7).<sup>109</sup> Types of patients in whom even curable diseases become most difficult to manage are enumerated (10.8).

The chapter ends with a verse on the proper behaviour towards women (10.9).

Chapter eleven (kṣārapākavidhi) deals with the preparation and uses of caustics (kṣāra).<sup>110</sup>

The importance of caustics is emphasized (11.3). The term kṣāra is derived from kṣar- or kṣaṇ- (11.4).<sup>111</sup> The properties and actions of caustics are enumerated (11.5). Two types of caustic are distinguished: for external application (pratisāraṇīya) and for internal administration (pāṇīya) (11.6). Their indications are listed (10.7–8), followed by the contra-indications for the pāṇīya type (11.9). A pāṇīyakṣāra should be prepared in the same way as a pratisāraṇīya (11.10).

The pratisāraṇīya kṣāra is of three kinds: weak (mṛdu), moderate (madhya) and strong (tīkṣṇa) (11.11). The preparation of the moderate variety is elaborately described,<sup>112</sup> followed by the preparation of the weak variety, also called saṃvyūhima, and the strong variety, also called pākya (11.11–13).<sup>113</sup>

The eight good qualities of a kṣāra are enumerated (11.16), followed by its eight defects (11.17).

The correct way of applying a kṣāra is described (11.18); turning black of the diseased part is the sign of proper burning (dagdhalakṣaṇa) by the caustic; when this occurs, neutralization (śamana) by an acid should follow (11.19). A particular ointment should be applied if the diseased part does not come off (11.20–21). The granulation (ropaṇa) of the wound should be promoted by a particular paste (11.22ab). The way in which acids neutralize caustics is explained (11.22cd–25).<sup>114</sup> The signs of adequate, inadequate and excessive application are mentioned (11.26), followed by the way to treat the lesion (kṣāradagdhaṇa) (11.27).

Patients and disorders, as well as sites, which are unsuitable for treatment with a kṣāra, are discussed (11.28–30).

Chapter twelve (agnikarmavidhi) is about cauterization (agnikarman),<sup>115</sup> characterized as superior to treatment with a caustic (12.3).<sup>116</sup>

The means for carrying out cautery are: long pepper (pippalī), goat's dung, the tooth of a cow, an arrow (śara),<sup>117</sup> or a śalākā for skin lesions; a jām̐bavauṣṭha<sup>118</sup> or a similar instrument made of a metal for lesions of the muscles; honey, guḍa (treacle) or a fatty substance<sup>119</sup> for lesions of sirās, snāyus, sandhis and bones (12.4).<sup>120</sup>

The seasons for the application of cautery are discussed (12.5). The preliminary treatment is described (12.6). Some are of the opinion that only skin and muscles are to be cauterized, but in this treatise the sirās, etc., can be treated as well (12.7).<sup>121</sup>

The signs of adequate cauterization of skin, muscles, sirās and snāyus, sandhis and bones (12.8), specific sites for cauterization in particular diseases (12.9), and the indications are listed (12.10).

Various patterns of cautery are described: circles (valaya), dots (bindu), lines (vilekhā),<sup>122</sup> and patterns produced by rubbing (pratisāraṇa)<sup>123</sup> (12.11).<sup>124</sup>

The after-treatment is dealt with (12.13); the contra-indications are listed (12.14).



Burns (dagdha) form the next subject of this chapter.<sup>125</sup> Two groups are distinguished, caused by dry heat and by heated fatty substances, and four degrees: *pluṣṭa* (singeing), *durdagdha* (blister formation), *samyagdagdha* (proper application), and *atidagdha* (a deep burn); their characteristics are described (12.15–16).<sup>126</sup> The pathogenesis of burns is explained (12.17–19ab). The management of the four kinds of burns is discussed (12.20–27ab), followed by an ointment for all kinds of burns (12.27cd–28), and the treatment of scalds by heated oils and fatty substances (12.29ab).

Next, the symptoms of smoke poisoning (*dhūmopahata*) are described (12.29cd–32) and its management by emetics, gargles (*kavalagraha*), evacuation of the head (*śirovirecana*), and diet (12.33–37).

The chapter ends with the treatment of those afflicted with the effects of hot winds (*uṣṇavātadagdha*), the heat of the sun (*ātapadagdha*), cold rains (*śītavarṣadagdha*), and cold winds (*śītāniladagdha*). Severe cases of sunstroke (*atitejodagdha*) and lightning burns (*indravajrāgnidagdha*) cannot successfully be treated (12.38–39).<sup>127</sup>

Chapter thirteen (*jalaukāvacāraṇīya*) deals with the application of leeches.<sup>128</sup>

Groups of patients in whom bloodletting by means of leeches is preferable to other procedures are mentioned (13.3).

Bloodletting (*raktāvasēcana*) can be carried out by means of cow's horns (*śṛṅga*),<sup>129</sup> leeches (*jalaukā*) and gourds (*alābu*) respectively; horns are preferable when the blood is deranged (*upaśṛṣṭa*) by *vāta*, leeches when by *pitta*, gourds when by *kapha* (13.4–7).<sup>130</sup> Cupping by means of a horn or gourd is described (13.8). The name of leech (*jalāyuka*, *jalaukas*) is explained (13.9).

Six poisonous and six non-poisonous kinds of leeches are distinguished (13.10).<sup>131</sup> The names of the poisonous leeches are: *kṛṣṇā*, *karburā*, *alagardā*,<sup>132</sup> *indrāyudhā*,<sup>133</sup> *sāmundrikā*, and *gocandanā*. A description of these leeches follows.<sup>134</sup> The symptoms of leech-bites and their treatment by means of a compound drug, called *mahāgada*,<sup>135</sup> are discussed; patients bitten by an *indrāyudhā* are, however, incurable (13.11). The names of the non-poisonous leeches are: *kapilā*, *piṅgalā*, *śaṅkumukhī*, *mūṣikā*, *puṇḍarīkamukhī*, and *sāvarikā*.<sup>136</sup> A description of these leeches follows (13.12).<sup>137</sup> Non-poisonous leeches, with good qualities, are found in the Yavana,<sup>138</sup> *Pāṇḍya*,<sup>139</sup> *Sahya*,<sup>140</sup> and *Pautana*<sup>141</sup> countries (13.13).<sup>142</sup>

The habitats of poisonous and non-poisonous leeches are described (13.14–15). The collection and storage of leeches is dealt with (13.16–17). Leeches regarded as unfit are described (13.18). The application of leeches is dealt with, their withdrawal, and their emptying.<sup>143</sup> An insufficiently emptied leech develops an incurable disease called *indramada* (13.19–22).<sup>144</sup> The treatment of the wounds after the application of leeches is discussed (13.23).

Chapter fourteen (*śoṇitavarṇanīya*) describes blood.

The chapter opens with the formation of *rasa* (the nutrient fluid) from the ingested food; this *rasa* is the extremely subtle essence (*sāra*) derived from the food; its seat is the heart<sup>145</sup> and it is of a *saumya* character (14.3).<sup>146</sup> The watery *rasa* gets coloured by

tejas<sup>147</sup> in liver and spleen (14.4–5). The rajas<sup>148</sup> of females is derived from the same rasa; it begins to appear at the age of twelve, ceases at the age of fifty, and is of an āgneya (fiery) nature (14.6–7).

Others are of the opinion that the life-blood (jīvarakta) is composed of the five mahābhūtas, since their qualities are present in it (14.8–9).

Rasa gives rise to blood (rakta), from which muscular tissue (māṃsa) is produced; muscular tissue gives rise to fatty tissue (medas), from which osseous tissue (asthi) is produced, which in its turn gives rise to bone marrow (majjan); bone marrow gives rise to semen (śukra).<sup>149</sup>

The pre-eminence of rasa as the primary source of the other elements (dhātu) is emphasized (14.10–12). The derivation of the term rasa is discussed (14.13). Each step in the transformational chain of the elements takes 3,015 kalās;<sup>150</sup> the entire series takes 18,090 kalās, which view is accepted in this as well as in other treatises (14.14–15).<sup>151</sup>

Aphrodisiacs possess, by dint of their special power and qualities (svabalaḡuṇotka-ṛṣa), the ability to form semen more quickly (14.17). Semen, as well as the secondary sexual characteristics, are compared to the fragrance in a flower bud; both, being imperceptible at first, make their appearance in the course of time (14.18).<sup>152</sup> The rasa derived from the food is, however, unable to replenish the body of old people (14.19).

The elements (dhātu) are called thus because they support (dhāraṇa) the body (14.20).

The characteristics of blood corrupted by each of the doṣas, by two and by all three doṣas are described (14.21), followed by those of blood in its normal condition (14.22).<sup>153</sup>

Bloodletting (raktavisrāvaṇa) constitutes the next subject.<sup>154</sup> Contra-indications are mentioned first (14.24).<sup>155</sup> There are two kinds of bloodletting by means of sharp instruments:<sup>156</sup> pracchāna (scarification)<sup>157</sup> and sirāvyadhana (venepuncture or phlebotomy)<sup>158</sup> (14.25). The technique is described (14.26).<sup>159</sup> The causes of an insufficient flow of blood are dealt with (14.27–28), followed by the symptoms in such a case (14.29). The causes and symptoms of an excessive flow are described too (14.30). Proper bloodletting, its effects and advantages are discussed (14.31–34). Powders to increase the blood flow, styptics (raktasthāpana)<sup>160</sup> and other methods of checking the bleeding are described (14.35–36), followed by dietary instructions (14.37–38).

Four ways of arresting haemorrhage and their indications are discussed: saṃdhāna<sup>161</sup> (contraction of the vessels) by means of astringent (kaṣāya) fluids, skandana<sup>162</sup> (thickening of the blood) by cold applications, pācana (desiccation of the wound) by means of ashes, and dahana (cauterization) (14.39–42). A small amount of impure blood that remains (in the system) after bloodletting does not require any further treatment (14.43). Blood should be protected carefully, because it constitutes the root of the body and is the substance that sustains it (14.44). The treatment of excited vāyu after bloodletting closes the chapter (14–45).

Chapter fifteen (doṣadhātumalakṣayavṛddhivijñānīya) discusses the signs of decrease (kṣaya) and increase (vṛddhi) of doṣas, dhātus and malas.<sup>163</sup>

The functions of each of the five kinds of vāyu, pitta and kapha are enumerated (15.4),<sup>164</sup> followed by the functions of the seven bodily elements (dhātu), the three main impurities (mala), i.e., faeces (purīṣa), urine (mūtra) and sweat (sveda), and the female procreational fluid (ārtava) (15.5). All these constituents should be protected in the proper way (15.6).

The chapter proceeds with the description of the signs of decrease of each doṣa (15.7)<sup>165</sup> and the treatment of these conditions (15.8),<sup>166</sup> the signs of decrease of each dhātu (15.9)<sup>167</sup> and the treatment of these conditions (15.10), the signs of decrease of each mala and the treatment of these conditions (15.11), the signs of decrease of the ārtava and the breast milk (stanya), as well as the signs pointing to a defective development of the foetus (garbhakṣaya),<sup>168</sup> followed by the treatment of these conditions (15.12).

The signs of increase of all the mentioned elements are described, followed by the general treatment of these conditions (15.13–17).

The next subject is ojas, in this treatise regarded as identical with bala.<sup>169</sup> Bala and ojas<sup>170</sup> are described, together with their functions (15.19–22). Three disorders of ojas/bala are distinguished and characterized: visraṃsa (dislodgment), vyāpad (derangement) and kṣaya (decrease) (15.23–28ab);<sup>171</sup> the management and degrees of curability of these disorders are dealt with (15.28–31).

Sthaulya (obesity) and kārsya (leanness) constitute the next subjects. Their causes, features and management are dealt with (15.32–33).<sup>172</sup> An average build (madhyaśarīra) is regarded as the best; leanness is preferable to obesity (15.34–36).

The normal values (parimāṇa) of doṣas, dhātus and malas cannot be ascertained, due to their variations;<sup>173</sup> a physician should for that reason infer their equilibrium or degree of disorder; it is his task to maintain the equilibrium when present and to establish it gradually when out of order (15.37–40).

The chapter ends with the definition of a healthy person (svastha) (15.41).

Chapter sixteen (karṇavyadhabandhavidhi) is concerned with the piercing (vyadha) and repair (bandha) of the ears.<sup>174</sup>

The age at which a child's ears should be pierced<sup>175</sup> and the technique of piercing are discussed (16.3–4).<sup>176</sup>

The complications (upadrava) which may arise when an ignorant physician accidentally (yadṛcchayā) pierces one of the three sirās called kālīkā, marmarikā and lohītikā are described (16.5), followed by the management of improper piercing, the care after a proper technique has been employed, and the gradual dilatation of the hole (16.6–8).

The next subject is formed by the repair (saṃdhāna) of ear lobules which split during the process of dilatation, either on account of (corrupted) doṣas or due to a trauma (abhighāta) (16.9).<sup>177</sup>

Fifteen types of split earlobes and their repair are described.<sup>178</sup> Their names are: nemisaṃdhānaka, utpalabhedyaka, vallūraka, āsaṅgima, gaṇḍakārṇa, āhārya, nirvedhima, vyāyojima, kapāṭasandhika, ardhakapāṭasandhika, saṃkṣipta, hīnakārṇa, vallīkārṇa, yaṣṭīkārṇa, and kākauṣṭhaka. The first ten of these types may be repaired suc-

cessfully, the treatment of the last five is likely to fail due to complications (16.10). Special procedures to be employed in difficult cases are added (16.11–13).

The technique of reconstructing an absent earlobe by means of a pedicle flap from the cheek is succinctly dealt with in one verse (16.14).<sup>179</sup>

The repair techniques in general are more elaborately described in prose (16.15), followed by post-operative precautions to be observed (16.16), contra-indications (16.17),<sup>180</sup> and after-treatment (16.18).

Subjects discussed next are: the techniques of elongating the earlobes (pāliva-rdhana) (16.19–25);<sup>181</sup> diseases of the earlobes (kaṇṇapālyāmaya) caused by the doṣas, and their treatment (additional verses 1–5);<sup>182</sup> a series of particular complications (upadrava) and their treatment;<sup>183</sup> the names of these complications are: utpāṭaka, utputaka, śyāva (discoloration), sakaṇḍūka (itching), avamanthaka, kaṇḍūmant (severe itching), granthika (keloid), jambula, śrāvin (formation of a discharge), dāhavant (the occurrence of a burning sensation) (additional verses 6–19).

The chapter ends with the famous verses on plastic surgery.<sup>184</sup> Reconstruction of a cut off nose<sup>185</sup> by means of a flap of skin is described (16.27–31),<sup>186</sup> followed by a similar technique for repairing a cleft lip (16.32).

Chapter seventeen (āmapakvaiṣaṇīya) is devoted to the knowledge (eṣaṇa) concerning unripe (āma) and ripe (pakva) (inflammatory swellings).

Subjects dealt with are: the characterization of śopha (swelling) (17.3); the signs of the six types of śopha, caused by one of the three doṣas, all three together, blood, and a trauma (the āgantū type) (17.4); the signs of śopha, when unripe (āma), ripening (pacyamāna) and ripe (pakva) (17.5); a real vaidya as the one who can recognize these stages (17.6); two competing theories about the patho-physiological processes leading to suppuration (pāka) (17.7–8); the dangers when an unripe swelling is incised or a ripe swelling not incised (17.9); the pre-operative regimen (17.11–13); the dangers of leaving śopha untreated (17.14) and the advantages of starting its management early (17.15); the necessity of draining pus (pūya) (17.16); the seven main ways of treating a vṛāṇa (ulcer or inflamed wound):<sup>187</sup> vimlāpāna (light massage), avasecana (bloodletting and other eliminative procedures), upanāha (the application of poultices), pātana (operative procedures), śodhana (purification), ropāṇa (granulation-promoting measures), and vaikṛtāpāha (restoration of the natural colour and the growth of hair)<sup>188</sup> (17.17–18).<sup>189</sup>

Chapter eighteen (vraṇālepanabandha) is devoted to pastes (ālepana) and bandages (bandha) to be employed in the treatment of sores (vraṇa).<sup>190</sup>

Subjects discussed in its first part are: the importance of pastes and bandages (18.3); the rule that a paste should be applied against the direction of the hair (pratiloma) and the reasons for doing so (18.4); a desiccated paste should not be used, unless pressure (pīḍana) is required (18.5); the three types of paste: pralepa (a thin paste), pradeha (a thick paste) and ālepa (a paste of medium consistency); their actions and indications; the nature of a kalka,<sup>191</sup> its actions and indications (18.6); actions and uses of an ālepa (18.7–9); a special rule for the ingredients of an ālepana in disorders caused by vāta,

pitta or kapha (18.10);<sup>192</sup> the thickness of an ālepa (18.11);<sup>193</sup> the appropriate time for ālepana (18.12–12); a lepa should always be freshly prepared (18.14–15).

The subjects of the second part are: bandaging materials (vraṇabandhanadravya) (18.16);<sup>194</sup> the fourteen types of bandage: <sup>195</sup> kośa, <sup>196</sup> dāman, <sup>197</sup> svastika, <sup>198</sup> anuvellita, <sup>199</sup> pratolī or mutolī, <sup>200</sup> maṇḍala, <sup>201</sup> sthagikā, <sup>202</sup> yamaka, <sup>203</sup> khaṭvā, <sup>204</sup> cīna, <sup>205</sup> vibandha, <sup>206</sup> vitāna, <sup>207</sup> gophaṇā, <sup>208</sup> and pañcāṅgī<sup>209</sup> (18.17);<sup>210</sup> the places of the body where to apply these bandages (18.18); technical rules (18.19–21);<sup>211</sup> three kinds of bandages: tight (gāḍha), even (sama) and loose (śithila), their characteristics and indications (18.22–25); the frequency of changing the dressing (18.26); the bad effects of improper bandaging, the advantages of correct bandaging, the disadvantages of not applying a bandage (18.27–31); contra-indications for applying a bandage (18.32–34); the site of the sore, the doṣa(s) involved, (the nature of) the sore and the season as the chief elements to be taken into consideration when selecting the proper bandage (18.35); the three types of making a knot (yantraṇā): above, laterally of, and below (the sore) (18.36). The chapter ends with a series of verses that give a summary of its contents (18.37–45).<sup>212</sup>

Chapter nineteen (vraṇitopāsanīya) is devoted to the care of patients suffering from vraṇa.

The subjects dealt with are: the selection of an appropriate sick room (āgāra) (19.3–4); the bed of the patient (19.5–6);<sup>213</sup> the importance of friendly company (19.7–8); rules for the patient (19.9–20); the effects of not observing the prescribed regimen (19.21–22); special rules aiming at warding off malevolent beings (rakṣas), attracted by the sore(s); these beings belong to the attendants of Paśupati,<sup>214</sup> Kubera and Kumāra (19.23); various measures to ward off these beings ((19.24–26); the recitation of benedictory verses (āśīrvidhāna) from the four Vedas by priests and physicians to protect the patient (19.27); fumigation as a protective measure (19.28); protective plants to be placed upon the head of the patient (19.29); various measures promoting healing of a vraṇa (19.30–37).

Chapter twenty (hitāhitīya) is devoted to wholesome (hita) and harmful (ahita) (diet and regimen).

Subjects dealt with are: the thesis that no medicinal substance is either entirely wholesome or unwholesome; the rejection of this thesis, because these substances are of three categories: beneficial, non-beneficial, or of a mixed character (20.3–4); a list of articles of diet which are most wholesome (pathyatama) (20.5); regimen declared to be most wholesome (20.6); articles of diet and regimen of a mixed character (20.7); combinations of substances which become equivalent to poisons (20.8); a second discourse on the thesis that no substance is either entirely wholesome or unwholesome (20.10–12); a list of insalutary combinations of articles of diet (20.13);<sup>215</sup> incompatibilities regarding prepared dishes (20.14);<sup>216</sup> quantitative incompatibilities (20.15);<sup>217</sup> incompatibilities regarding taste (rasa), potency (vīrya) and vipāka (20.16);<sup>218</sup> articles of diet to be avoided are those with an excess of any property (20.17); the harmful effects of incompatible substances and the management of the disorders resulting; cir-

cumstances which diminish the bad effects (20.18–22); the properties and actions of winds coming from the east, south, west, and north (20.23–30).

Chapter twenty-one (vraṇapraśna) is concerned with questions (praśna) relating to sores (vraṇa).

Subjects dealt with in the first part of the chapter are: the three doṣas support the body, like the pillars (sthūṇā) of a house; the body is called trissthūṇa for that reason; when deranged (vyāpanna), the same doṣas bring about the body's dissolution (pralaya); the three doṣas, together with blood as the fourth, are always present in the body, maintaining it (21.3–4); the etymologies of the names of the doṣas (21.5); the chief seats (sthāna) of the doṣas; vāta is located in the śroṇi (pelvic region) and guda (recto-anal region), pitta between pakvāśaya and āmāśaya,<sup>219</sup> kapha in the āmāśaya<sup>220</sup> (21.6); the seats of the five kinds of pitta and kapha<sup>221</sup> (21.7); the maintaining functions of kapha, pitta and vāta are likened to the emission (visarga), absorption (ādāna), and the capacity of imparting motion (vikṣepa) of moon, sun and wind respectively (21.8); the relationship between pitta and agni; the internal fire (antaragni) is declared to be the same as pitta (21.9);<sup>222</sup> the seats and functions of the five kinds of pitta: pācaka, located between pakvāśaya and āmāśaya, rañjaka, located in liver and spleen, sādaka, located in the heart, ālocaka, located in the eyes, and bhrājaka, located in the skin (21.10);<sup>223</sup> the qualities of pitta (21.11);<sup>224</sup> the seats and functions of the five kinds of kapha, located in the āmāśaya, chest, root of the tongue and throat, head, and junctures (sandhi) respectively (21.12–14);<sup>225</sup> the qualities of kapha (21.15);<sup>226</sup> the main seats (liver and spleen) and function of blood (21.16); the qualities of blood: neither hot nor cold, sweet (madhura), oleaginous (snigdha), red in colour, heavy (guru), of a musty smell (visra), and with a vidāha like that of pitta (21.17).<sup>227</sup>

The second part of the chapter is devoted to the six stages of development of a disease, which are called kriyākāla because they necessitate treatment.<sup>228</sup> The symptoms of accumulation (saṃcaya) of the doṣas, the first stage, are described (21.18);<sup>229</sup> the second stage, excitement (prakopa) of the doṣas, is elaborately discussed; the factors leading to excitement of each of the doṣas and blood are separately enumerated, followed each time by the seasons, parts of day and night, and stages of the digestive process during which this excitement is likely to occur (21.19–26); the symptoms of excitement are listed (21.27); the third stage, spread (prasara) of the doṣas,<sup>230</sup> impelled by vāta, throughout the body, shows fifteen varieties, dependent on the number of doṣas involved<sup>231</sup> and all their combinations (21.28); the way morbid changes (vikāra) are produced during this stage, their management, and the signs indicating prasara are dealt with (21.29–32); the fourth stage is called sthānasaṃśraya because localized disorders, or even generalized ones, begin to appear; these disorders may affect a particular part of the body or one of the seven elements; the characteristic sign of this stage is the prodrome (pūrvārūpa) (21.33); the fifth stage (vyakti)<sup>232</sup> is characterized by the appearance of the fully manifest signs (pravyaktalakṣaṇa)<sup>233</sup> of particular diseases (21.34); the sixth stage (bheda)<sup>234</sup> is that in which sores appear and generalized diseases become chronic (21.35); a good physician is he who has acquired an accurate knowledge

of these six stages (21.36).

The doṣas should be eliminated in the stage of accumulation in order to prevent that the next steps of the process are reached (21.37). A partially excited doṣa may get more excited when it comes in contact with a (completely) excited one (21.38).<sup>235</sup> The most excited one of a combination of doṣas should be counteracted first (21.39).

The chapter ends with the etymology of the term vṛaṇa (21.40).

Chapter twenty-two (vraṇāśrāvavijñānīya) is about sores, their discharges (srāva),<sup>236</sup> and some other subjects.

Subjects dealt with are: the eight substrates (vastu) of sores: skin, muscular tissue, sirās, snāyus, osseous tissue, junctures (sandhi), viscera (koṣṭha), and vital spots (marman) (22.3);<sup>237</sup> a sore in the first of these substrates, which makes the skin burst, is easy to treat; sores in the remaining substrates are difficult to manage (22.4);<sup>238</sup> the shapes (ākṛti) of sores: oblong (āyata), rectangular (caturasra), round (vṛtta), triangular (triṇṇaka); sores with other, irregular shapes (vikṛtākṛti) are difficult to treat (22.5);<sup>239</sup> sores heal rapidly when the patient keeps to the rules concerning diet and conduct and when the physician is competent (22.6); the characteristic features of corrupted sores (duṣṭavraṇa): a very narrow opening (atisaṇṇivṛta), a very wide opening (ativivṛta), excessive induration (atikaṭhina), excessive softness (atimṛdu), excessive elevation (atyutsanna), excessive depression (atyavasanna), excessive coldness (atiśīta), excessive heat (atyuṣṇa), a fierce (bhairava) aspect due to the presence of a black, red, yellow, white, or other colour, being filled with foul-smelling (pūti) pus (pūya),<sup>240</sup> muscular tissue, sirās, snāyus, etc., and discharging foul-smelling pus, deviation from the usual track (unmārgin),<sup>241</sup> a pouchy aspect (utsaṅgin),<sup>242</sup> an unpleasant (amanojña) aspect and smell, severe pain (vedanā), association with an excessive burning sensation, suppuration (pāka), redness (rāga), itching, swelling, and boils (piḍakā), a discharge of corrupted blood, and chronicity (dīrghakālānubandhin);<sup>243</sup> these types should be arranged in six groups, dependent on the excess (ucchrāya) of the doṣa(s) involved,<sup>244</sup> and treated accordingly (22.7); types of discharge (srāva) according to the substrate of the sore and the doṣa(s) involved (22.8);<sup>245</sup> incurable discharges (22.9–10); types of painful sensations (vedanā), caused by vāta, pitta, blood, kapha, and all the doṣas together (22.11);<sup>246</sup> the colours of sores, dependent on the doṣa(s) involved (22.12).<sup>247</sup>

The chapter ends with a verse expounding that the characteristics of sores as described also apply to all kinds of swelling (śopha) (22.13).

Chapter twenty-three (kṛtyākṛtyavidhi) is devoted to tractable (kṛtya) and intractable (akṛtya) (lesions).

Its subjects are: the qualities of an easily curable patient (23.3);<sup>248</sup> the opposite qualities, leading to incurability (23.4);<sup>249</sup> sites where sores easily heal (23.5); sites, along with other features, which make sores difficult to treat (duścikitsya) (23.6); other conditions making sores curable with difficulty (23.7); conditions making sores amenable to palliative treatment (yāpya) only (23.8); without treatment, curable sores become palliable, palliable ones incurable, and incurable ones fatal (23.9); the

definition of palliability (23.10–11); features of incurable sores (23.12);<sup>250</sup> some kinds of āgantu (traumatic) sores which are curable, whereas the same kinds caused by the doṣas are incurable (23.13); a sore that spreads (to other elements of the body) and becomes deep-seated should be regarded as incurable (23.14–16); sores with opposite qualities are easily curable (23.17); the characteristics of a clean (śuddha), healing, and healed (samyagrūḍha) sore (23.18–20); causes making a healed sore re-open (23.21).

Chapter twenty-four (vyādhisamuddeśīya) discusses the classification of diseases.

Diseases are of two categories: curable by surgical means (śāstrasādhya) and curable by means of oleation and related procedures; oleation, etc., are not contra-indicated in the first category, but surgery should not be carried out if oleation, etc., are thought to be adequate (24.3).

All the diseases will be dealt with in this treatise. As already mentioned,<sup>251</sup> disease (vyādhī) is a condition associated with suffering (duḥkhasaṃyoga). This suffering is of three types: ādhyātmika (of internal origin), ādhibhautika (of external origin) and ādhidaivika (of celestial or divine origin).<sup>252</sup> These types are divided into seven groups: ādibalapravṛtta, janmabalapravṛtta, doṣabalapravṛtta, saṃghātabalapravṛtta, kālabalapravṛtta, daivabalapravṛtta, and svabhāvabalapravṛtta (24.4).<sup>253</sup>

Ādibalapravṛtta are the diseases resulting from a defect (doṣa) of semen (śukra) or female procreational fluid (śoṇita), which means that they are transmitted by one of the parents; examples are kuṣṭha and arśas (haemorrhoids). Janmabalapravṛtta diseases result from transgressions (apacāra) of the mother (during pregnancy); they are either caused by the rasa (derived from an improper diet) or neglect of the pregnant woman's cravings (dauḥṛda); examples are paṇḍu (lameness), jātyandha (congenital blindness), badhira (deafness), mūka (dumbness), minmina (a nasal voice), and vāmana (dwarfism). Doṣabalapravṛtta are the diseases arising from (an already present) illness (ātanka),<sup>254</sup> as well as those caused by a faulty diet (āhāra) and conduct (ācāra); they are of two kinds again: originating from the āmāśaya or the pakvāśaya; they are of two kinds too when distinguished into bodily and mental ones.<sup>255</sup> These three groups together constitute the diseases called ādhyātmika.

Saṃghātabalapravṛtta are those āgantu<sup>256</sup> disorders which are caused by contests (vigraha) of a weaker with a stronger one; they are of two kinds: brought about by sharp objects (śastra)<sup>257</sup> and by wild animals (vyāla).<sup>258</sup> These are the disorders called ādhibhautika.

Kālabalapravṛtta are the disorders caused by cold, heat, wind, rain, the heat of the sun (ātapa), etc.; they are of two kinds: arising from seasonal abnormalities (vyāpannartuka) or arising (even) when the seasons are normal.<sup>259</sup>

Daivabalapravṛtta are the disorders resulting from offenses against the gods<sup>260</sup> (devadroha), curses (abhiśaptaka), Atharvavedic charms (atharvaṇa), and upasarga;<sup>261</sup> they are of two kinds: caused by lightning and thunder, or by Piśācas and other (malevolent beings); they are of two kinds again when divided into saṃsargaja<sup>262</sup> and ākasmika.<sup>263</sup>

Svabhāvabalapravṛtta diseases are of natural origin: hunger, thirst, ageing, death,



sleep, etc.; they are of two kinds: occurring at the proper time (kāla) or at an improper time (akāla); they appear in those taking care of themselves (parirakṣaṇa) or those neglecting the rules regarding health respectively. These are the disorders called ādhidaivika (24.7).

All the diseases are rooted in vāta, pitta and kapha; in the same way all the evolutes (vikāra) derive from sattva, rajas and tamas.<sup>264</sup> The diversity of the diseases arises from the interplay (saṃsarga) among doṣas, dhātus and malas, the specificity of their seats (āyatanaviśeṣa), and their (various) causes (nimitta). They are called after the dhātu that has been corrupted by a doṣa (24.8).

Disorders (vikāra) arising from a corrupted condition (doṣa) of rasa, rakta,<sup>265</sup> māṃsa, medas, asthi, majjā, and śukra<sup>266</sup> are enumerated, followed by those appearing when the seats of the malas<sup>267</sup> and indriyas (senses)<sup>268</sup> are in a corrupted condition (24.9).

Diseases arise there, where the excited doṣas, circulating in the body, get obstructed due to an abnormality (vaiguṇya) of the channels (kha) (24.10). Diseases are always associated with the doṣas, but the production (utpatti) of a disease can only come about in the presence of an accessory cause (nimitta) (24.11).

Chapter twenty-five (aṣṭavidhaśāstrakarmīya) is devoted to the eight surgical procedures (śāstrakarman).<sup>269</sup>

The subjects are: disorders to be treated by means of excision (chedya), incision (bhedyā), scarification (lekhyā), puncturing (vedhya), probing (eṣya), extraction (āhārya), drainage (srāvya), and suturing (sīvyā) (25.3–17ab);<sup>270</sup> contra-indications for suturing (25.17cd–18ab); wound toilet before suturing (25.18cd–19); the technique of suturing and the materials to be used (25.20–21); various types of suturing: vellitaka (curved),<sup>271</sup> gophaṇikā (reinforcing),<sup>272</sup> tunnasevanī (a suture of the darning type),<sup>273</sup> r̥jugranthi (interrupted),<sup>274</sup> etc. (25.22); the three types of suturing needles (sūcī): circular (vṛttā), straight (āyatā), and semicircular (dhanurvākṛā); the uses of these types (25.23–25ab); the correct distance to be observed in making a suture (25.25cd–26);<sup>275</sup> after-treatment: dressing, powdering (pratisāraṇa) and bandaging (25.27–28); the four misfortunes (vyāpad) of surgical interventions: incisions that are too small (hīna), too large (atirikta), or slanting (tiryañc), and self-injury on the part of the physician as the fourth type (25.30); complications due to errors of the surgeon (25.31–32); the signs of injury to vital spots in general (marman), sirās, snāyus, junctures (sandhi), bones, and a māṃsamarmān (25.33–40); self-injury (25.41); care to be taken with regard to sharp instruments (25.42); the importance of trust (viśvāsa) on the part of the patient (25.43–44); the praise of a reliable physician (25.45); the occasional necessity of having recourse to more than one surgical intervention (25.46).

Chapter twenty-six (pranaṣṭaśalyavijñānīya) is devoted to the knowledge about śalyas<sup>276</sup> invisibly lodged (pranaṣṭa) (in the body).<sup>277</sup>

The subjects discussed are: the etymology of the term śalya (26.3); the two types of śalya: arising within the body (śārīra) and coming from outside (āgantuka) (26.4); anything giving rise to pain (ābādha) all over the body is called śalya, and śalyaśāstra is the

science concerned with śālyas (26.5). The śārīra type of śālya consists of teeth, hairs, nails, etc., as well as corrupted bodily elements (dhātu), foods (anna), impurities (mala) and doṣas; all the other ones belong to the āgantuka type (26.6); the āgantuka śālyas may be (pieces of) metal (loha), bamboo (vēṇu), wood (vṛkṣa), grass, horn or bone; out of these, the metallic ones, and among the metallic ones, arrows (śara), should be taken into consideration primarily; arrows are of two types: barbed (kaṇṇin) and smooth (ślakṣṇa), and of various shapes (26.7);<sup>278</sup> the five directions from which a śālya may enter the body (26.8); the sites where it may lodge (26.9); the general features after entry; the specific signs of a śālya lodged in the skin, muscular tissue, a muscular belly (peśī), a sirā, snāyu, srotas, or dhamanī, a bone, a cavity within a bone (asthivivara), a juncture, the viscera (koṣṭha), or a marman (26.10); prognostic features (26.11); procedures for detecting śālyas which are invisibly lodged somewhere within the body (26.12); general tests which may be helpful in localizing a śālya (26.13); other signs indicating the site of a śālya (26.14–15); exploration of the track with a probe (eṣaṇī) (26.16–17); sequelae of unextracted śālyas (26.18–22).

Chapter twenty-seven (śālyāpanayanīya)<sup>279</sup> is about the removal (apanayana) of śālyas.<sup>280</sup>

The subjects dealt with are: the two types of śālya: fixed (avabaddha) and loose (anavabaddha) (27.3); the fifteen measures for the removal (uddharaṇa) of loose śālyas: svabhāva (natural bodily functions), pācana (maturation), bhedana (incision), dāraṇa (causing a burst), pīdana (squeezing), pramārjana (cleansing), nirdhmāpana (blowing), vamaṇa (emesis), virecana (purgation), prakṣālaṇa (irrigation), prātimarśa,<sup>281</sup> pravāhaṇa (straining), ācūṣaṇa (sucking), ayaskānta (a magnet), and harṣa (cheering) (27.4); indications for each of these measures (27.5); two ways of removing (āharaṇa) a śālya: in the opposite direction (pratiloma) or in the direction of entry (anuloma);<sup>282</sup> indications for the pratiloma and anuloma techniques (27.6–7); a sharp-pointed (chedanīyamukha) śālya, if protruding (uttuṇḍita), should be manually removed after making an incision (27.8); the same type of śālya<sup>283</sup> is to be removed manually through its own track if lodged in the belly (kukṣi),<sup>284</sup> chest, an armpit (kakṣā), groin (vaṅkṣaṇa), or intercostal space (parśukāntara) (27.9); if manual removal proves to be impossible, then the track should be widened with a sharp instrument and the śālya removed with a blunt instrument (27.10); measures to be taken if the patient faints (27.11); post-operative care; the techniques to be employed in some difficult cases (27.12);<sup>285</sup> the removal of a śālya located in the vicinity of the heart (27.13); the removal of a śālya that has penetrated into the cavity of a bone or has got stuck in a bone; the shaft (vāraṅga) of such a śālya should be tied to a bow-string, the other end of which is to be fastened to the rein of a horse with a pañcāṅgī bandage;<sup>286</sup> the horse should be whipped, and, when it lifts its head forcibly, the śālya comes out; or, a strong branch of a tree should be bent and tied to the śālya, which comes out when the branch straightens (27.14);<sup>287</sup> a protruding (uttuṇḍita) śālya, located where it cannot be removed surgically, should be loosened by strokes of an aṣṭhīlā,<sup>288</sup> stone or mallet (mudgara), and removed through its own track by means of a blunt instrument (27.15); the extraction of barbed arrows (27.16); the removal of lac (jātuṣa) from the throat by means of a heated śalākā inserted into a hollow

tube; a related method for the removal of other substances (27.17–18); the removal of a śalya consisting of bone or a similar substance when stuck up in the throat (27.19); treatment of a patient whose belly is filled up with water (27.20);<sup>289</sup> the treatment to be applied when a morsel of food (grāsaśalya) is arrested in the throat (27.21); treatment of strangling (27.22). The chapter ends with some general directions (27.23–26).

Chapter twenty-eight (viparītāviparītavraṇavijñānīya), the first of a series of chapters on (a)riṣṭas,<sup>290</sup> is concerned with the knowledge about signs indicating an unfavourable prognosis in patients with sores (vraṇa).

The chapters opens with some general verses on riṣṭas, which are signs pointing to a fatal outcome in due course of time. The effects of ariṣṭas can be overcome only by brāhmaṇas without any blemish, who are experts in rasāyana, ascetic practices (tapas) and jāpya<sup>291</sup> (28.3–7).

Subjects dealt with are: deviations from the normal smells, colours and tastes point to a bad prognosis in patients with sores (28.8); the normal smells of sores associated with one or more of the doṣas and blood (28.9–10);<sup>292</sup> unfavourable smells (28.11–12);<sup>293</sup> unfavourable characteristics of sores associated with pitta, kapha and vāta (28.13–15); other bad signs (28.16–18ab); to be rejected are patients with sores shaped like a spear (śakti),<sup>294</sup> banner (dhvaja),<sup>295</sup> chariot (ratha), javelin (kunṭa),<sup>296</sup> horse, elephant, cow, bullock, or prāsāda,<sup>297</sup> as well as those with sores that appear as covered with powder (cūrṇa) (28.18cd–19); general characteristics of patients with sores who should not be accepted for treatment (28.20); a patient should be discarded when his sores do not heal in spite of proper treatment (28.21).

Chapter twenty-nine (viparītāviparītasvapnanidarśanīya) is about prognostic signs relating to the messenger (dūta)<sup>298</sup> and to dreams (svapna).<sup>299</sup>

Subjects dealt with are: the factors of prognostic significance in the messenger and the physician (29.3–4); similarity with regard to faith,<sup>300</sup> stage of life (āśrama) and social class (varṇa) indicates success in treatment, the reverse portends failure (29.5); various unfavourable characteristics of messengers (29.6–15ab); characteristics of the physician which make the approach of a messenger betoken evil (29.15–19); differences in the meaning of particular characteristics of a messenger, dependent on the doṣa that prevails in the disease of the patient (29.20–21); favourable signs relating to messenger and physician (29.22–26); auspicious omens observed by the physician on his way to the patient (29.27–31);<sup>301</sup> auspicious and inauspicious omens relating to birds and other animals (29.32–37);<sup>302</sup> unfavourable sights observed by the physician on his way (29.38–40); favourable and unfavourable winds (29.41); favourable and unfavourable words and sounds (29.42–44); inauspicious omens observed when the physician arrives at or departs from the patient's house (29.45–48); bad omens observed within the patient's house (29.49–53ab);<sup>303</sup> unfavourable dreams dreamt by the patient or those friendly disposed to him or her (29.54cd–66); dreams having no prognostic significance (aphalada)<sup>304</sup> are those which are in conformity with one's constitution (prakṛti),<sup>305</sup> forgotten (vismṛta), superimposed by another dream (vihata),<sup>306</sup> produced by anxiety (cintā),<sup>307</sup> and experienced by day<sup>308</sup> (29.67); dreams indicating a fa-

tal prognosis of particular diseases (29.62–71ab);<sup>309</sup> means of warding off the effects of inauspicious dreams: gifts to brāhmaṇas,<sup>310</sup> the muttering of auspicious mantras and the tripadā gāyatrī, thinking of auspicious things or Veda recitation,<sup>311</sup> keeping silent about the dream, staying at a temple for three nights, and worship of brāhmaṇas (29.71cd–74); auspicious dreams (29.75–81).

Chapter thirty (pañcendriyārthavipratipatti) is devoted to unfavourable prognostic signs connected with the five senses.<sup>312</sup>

Subjects discussed are: signs related to hearing (30.4–6), the tactile sense (30.7–10), taste (30.11–12), smelling (30.13–14ab), and vision (30.15cd–23). One verse (30.14cd–15ab) is about the perception of qualities opposite to the actually present ones.

Chapter thirty-one (chāyāvipratipatti) is about unfavourable types of chāyā<sup>313</sup> and various other prognostic signs.

Unfortunate signs are: the sudden appearance of a śyāvā, lohīṭikā (reddish), nīlā (dark-blue) or pītikā (yellowish) chāyā (31.3);<sup>314</sup> the unaccountable loss of particular character traits, such as modesty (hrī), memory (smṛti), and resolution (dhṛti), and the loss of aspects of the outward appearance, such as lustre (prabhā) of the complexion and beauty (śrī), or their sudden emergence (31.4).<sup>315</sup>

A series of unfavourable signs pointing to imminent death are described. Some of these signs relate to the appearance of the lips (31.5),<sup>316</sup> teeth (31.6),<sup>317</sup> tongue (31.7),<sup>318</sup> nose (31.8),<sup>319</sup> eyes (31.9),<sup>320</sup> hairs, brows and eyelashes (31.10).<sup>321</sup> Other signs consist of various pathological phenomena: the inability to swallow food and to keep the head steady (31.11),<sup>322</sup> fainting fits (sarpṃmoha) (31.12),<sup>323</sup> changes in the sleeping posture (31.13), respiratory abnormalities (31.14),<sup>324</sup> sleep disorders (31.15),<sup>325</sup> talking with ghosts (31.16), haemorrhages (31.17), a vātāṣṭhīlā in the cardiac region (31.18),<sup>326</sup> an oedema (śopha) spreading over the body upwards or downwards (31.19),<sup>327</sup> a series of complications of śvāsa (respiratory disorders) (31.20), excessive sweating, a burning sensation, and hiccup or śvāsa in a strong patient (31.21).

The remaining subjects are: signs of imminent death (31.22–26),<sup>328</sup> some syndromes pointing to a fatal outcome within a short time (31.27–29); factors leading to the death of living beings (31.30); malevolent beings haunting those who are about to die (31.31–32).

Chapter thirty-two (svabhāvavipratipatti) describes various fatal signs, consisting of changes in the normal features (svabhāva) of a number of parts of the body (32.3), followed by a long list of prognostically very bad signs (32.4–6).<sup>329</sup>

Chapter thirty-three (avāraṇīya)<sup>330</sup> discusses disorders which become untreatable,<sup>331</sup> except by means of rasāyana, because of the presence of complications (upadrava) (33.3).

Subjects discussed are: the eight major diseases (mahāgada): vātavyādhi (vāta dis-

eases), prameha (urinary disorders), kuṣṭha (a group of skin diseases), arśas (haemorrhoids), bhagandara (ano-rectal fistulas), aśmarī (vesical calculi), mūḍhagarbha (foetal malpresentations), and udara (a group of abdominal disorders) (33.4–5ab);<sup>332</sup> complications that should be rejected for treatment (33.5cd–6); fatal complications of each of the eight major diseases (33.7–14); untreatable complications of jvara (fever) (33.15–18), atisāra (diarrhoea) (33.19), yakṣman (wasting diseases) (33.20), gulma (33.21), vidradhi (an abscess) (33.22), pāṇḍuroga (morbid pallor) (33.23), raktapitta (haemorrhagic disorders) (33.24), unmāda (insanity) (33.25), and apasmāra (epilepsy) (33.26).

Chapter thirty-four (yuktasenīya)<sup>333</sup> is concerned with the duties of a royal physician and army surgeon,<sup>334</sup> as well as with the four pillars of treatment.

The subjects discussed are: the duty of a physician to protect a king, his chief officials (amātya) and his army, when this king plans to conquer the enemy (34.3–4);<sup>335</sup> the physician should in particular protect the king from being poisoned (34.4);<sup>336</sup> everything likely to be poisoned by the enemy should be purified by the physician (34.5);<sup>337</sup> poisons will be discussed in the Kalpasthāna (34.6ab); the *Atharvaveda* experts acknowledge one hundred and one kinds of death,<sup>338</sup> only one of which is natural (kālasaṇyukta), while all the rest are due to āgantu agencies; the physician (vaidya) and the priest (purohita), experts in rasa<sup>339</sup> and mantra respectively, should protect the king from dying by doṣaja and āgantuja disorders (34.6cd–8ab); Brahmā expounded the eight-limbed āyurveda, which is a vedāṅga; this implies that a physician should act in accordance with the opinions of the purohita (34.8cd–9ab); the importance of a king; the preservation of his life is all-important (34.9cd–12ab); the duties of an army surgeon in the camp (skandhāvāra)<sup>340</sup> (34.12cd–14ab); a physician who has mastered other sciences than medicine deserves to be praised by the king and the experts (34.14cd–15ab); the physician, the patient, the drug and the attendant as the four pillars (pāda) on which the success of treatment depends<sup>341</sup> (34.15cd–16ab); the physician holds the most prominent place among the four, like the adhvaryu among the group of priests at an adhvara;<sup>342</sup> he is, even when quite alone, able to save a patient, like a helmsman without the crew can save a ship (34.16cd–19ab); good qualities of a physician, patient, drug and attendant (34.19cd–24).

Chapter thirty-five (āturopakramaṇīya) contains an exposition on general principles related to treatment (upakramaṇa).

Subjects dealt with are: before beginning treatment, a patient's āyus (life expectancy) should be examined; when no dangerous signs with regard to a patient's āyus can be detected, the physician should proceed to an examination of the disease, the season, the digestive fire, age, bodily strength, sattva, sātmya, and constitution (prakṛti) (of the patient), the drug, and the type of country (35.3); general features of persons with a long life expectancy; those with opposite features have a short, those with features intermediate between the two extremes a moderate life expectancy (35.4);<sup>343</sup> more characteristics of a long-lived person (35.5–6);<sup>344</sup> features of persons with a moderate<sup>345</sup> (35.7–9ab) and short life span<sup>346</sup> (35.9cd–11); the standard measurements (pramāṇa) of various parts of the human body; the major parts (aṅga)

are the trunk (antarādhī), lower extremities (sakthi), upper extremities (bāhu), and head; the subdivisions are the minor parts (pratyaṅga); the yardstick is (the breadth of) the patient's own finger (aṅgula); the total length of the (male) human body is 120 aṅgula<sup>347</sup> (35.12);<sup>348</sup> the human male attains complete bodily maturity in his twenty-fifth, the female in her sixteenth year (35.13); those whose bodily measurements are in conformity with the standards are long-lived and acquire great wealth (vitta); the life expectancy and material welfare are moderate, respectively inferior, in those with medium or inferior proportions (35.14–15); the physical and mental characteristics of persons with a sattvasāra, śukrasāra, majjasāra, asthisāra, medaḥsāra, māṃsasāra, raktasāra, and tvaksāra; their life-expectancy and welfare (saubhāgya) decrease in the mentioned order (35.16);<sup>349</sup> the classification of diseases into curable ones (sādhya), palliable ones (yāpya), and those to be rejected (for treatment) (pratyākhyeya); their classification into aupasargika, prākkevala and anyalakṣaṇa; an aupasargika disease is added to an already existing disease, has the same basis (mūla) as the primary one, and is called upadrava (complication); a prākkevala disease is devoid of prodromes and complications; an anyalakṣaṇa disease forecasts a future disease and consists of prodromes; an aupasargika disease needs a type of treatment that is not in disagreement with the primary one, or the complication should be treated first; a prākkevala disease should be treated on its own merits; an anyalakṣaṇa disease should be treated like the particular disease in this early stage of its development (35.18);<sup>350</sup> any disease should be treated according to the doṣa(s) involved (35.19); treatment according to the seasons (35.20–22); the definition of correct treatment (35.23); the four types of digestive fire: unaffected by the doṣas (doṣānabhipanna) or affected by these; it is viṣama (irregular) when affected by vāta, tikṣṇa (sharp) when affected by pitta, manda (sluggish) when affected by kapha; the characteristic features of these types and those of an excessively (burning) digestive fire (atyagni) (35.24);<sup>351</sup> a viṣama fire gives rise to vāta diseases, a tikṣṇa fire to pitta diseases, a manda fire to kapha diseases (35.25); the treatment of disorders of the digestive fire (35.26); the divine nature of the digestive fire, its subtlety and invisibility; its is stirred up and protected by prāṇa, apāna and samāna (35.27–28); the stages of life (vayas) are youth (bālya), adulthood (madhya) and old age (vṛddha);<sup>352</sup> youth extends up to the sixteenth year of life; the young are classified into those drinking milk only (kṣīrapa), those both drinking milk and taking solid food (kṣīrānnāda) and those taking solid food only (annāda); the first group consists of infants up to the end of the first year of life, the second group of those in their second year, the third of those who are older; adulthood is divided into four stages: growth (vṛddhi), up to twenty years, young adulthood (yauvana), up to thirty years, maturity (sāmpūrṇatā), up to forty years, and gradual deterioration (parihāni), up to seventy years; the signs of old age are described (35.29);<sup>353</sup> the dosages of medicines should be increased progressively with the advance of age, but when deterioration is present, the dosages to be prescribed are the same as those in the first stage of life (35.30); kapha increases in the young, pitta in the adult, vāta in the elderly; this should be taken into consideration before beginning treatment; cauterization, treatment with caustics and purgatives should in general be avoided in the young and the elderly, but, when necessary, applied in a

mild form (35.31–32); the general physique is obese (sthūla), lean (kṛśa), or average (madhya); this general physical type and a patient's bodily strength (bala) or weakness are factors influencing treatment (35.33–36); characteristics of sāttvika, rājasa and tāmasa individuals in relation to treatment (35.37–38); sātmia is defined; several types are mentioned: deśa-, kāla-, jāti-, ṛtu-, roga-, vyāyāma-, udaka-, divāsvapna- (day-sleep), rasasātmia, etc. (35.39–40);<sup>354</sup> constitutions and drugs are topics to be discussed later on (35.41); the three types of country: ānūpa, jāṅgala and sādharma; their description and some rules concerning one's residence (35.42–45);<sup>355</sup> features which characterize easily curable (sukhasādhya) diseases, incurable ones and those which are difficult to cure (35.46–47); therapeutic procedures should be tried one after another and never simultaneously (35.48–49).

Chapter thirty-six (bhūmipravibhāgiya)<sup>356</sup> is about the classification of soils<sup>357</sup> and some other subjects.

The subjects dealt with are: the type of soil most suitable to the collection of medicinal plants; selection criteria for these plants (36.3);<sup>358</sup> the characteristics of soils in which one of the five mahābhūtas predominates (36.4); the opinion of some experts that roots, leaves, barks (tvac), milky juices (kṣīra), heartwoods (sāra), and fruits should be collected in the seasons of prāvṛṣ (early raining season), varṣāḥ (rainy season), śarad (autumn), hemanta (winter), vāsanta (spring), and grīṣma (summer) respectively;<sup>359</sup> the rejection of this opinion, on account of the saumya or āgneya character of everything in the world; saumya drugs are to be collected in saumya seasons, āgneya drugs in āgneya seasons<sup>360</sup> (36.5); purgative drugs should be taken from soils with a predominance of earth and water, emetics from soils with a predominance of fire, ākāśa and air; soils possessing a combination of these properties produce drugs with both types of action;<sup>361</sup> soils in which ākāśa predominates produce samśamana drugs (36.6); all drugs should be used when still in a fresh state; exceptions are honey, ghee, treacle (guḍa), pippalī and viḍaṅga, which are beneficial when old; honey, etc., of at least one year old, should be taken when older samples are unavailable (36.7–9);<sup>362</sup> information on the identity (vyakti) of drugs may be collected from cowherds, ascetics, hunters, forest-dwellers and those living on food of vegetable origin (36.10); drugs all parts of which can be employed medicinally, may be collected in all seasons (36.11);<sup>363</sup> some generalities on soils and the drugs growing in them; the unmanifest (avyakta) taste of water, which becomes manifest due to the taste of a particular kind of soil (36.12–15);<sup>364</sup> medicinal substances of animal origin should be collected from grown-up individuals; their milk, urine and faeces should be collected after digestion of the food (36.16); rules for the room in which drugs are stored (36.17).<sup>365</sup>

Chapter thirty-seven (mīśraka)<sup>366</sup> is devoted to miscellaneous prescriptions.

The subjects dealt with are: pralepas against swellings (śōpha) due to the doṣas, blood and a trauma (37.3–7);<sup>367</sup> some rules for the application of these pralepas (37.8); applications which are pācana (37.9), dāraṇa (making a swelling burst) (37.10),<sup>368</sup> and prapīḍana (having a squeezing effect) (37.11); prescriptions which are śodhana (purifying): kaṣāyas (decoctions) (37.12),<sup>369</sup> vartis<sup>370</sup> and kalkas (pastes) (37.13–15),

a medicated ghee (37.16–17ab), a medicated oil (37.17cd–18), cūrṇas (powders) (37.19), and rasakriyās (inspissated juices) (37.20);<sup>371</sup> dhūpana (fumigation) of a vraṇa (37.21); prescriptions which are ropaṇa (promoting the healing of sores): śrtaś (decoctions) and śītakāṣāyas (cold infusions) (37.22),<sup>372</sup> vartis (37.23), kalkas (37.24), a medicated ghee (37.25) and oil (37.26),<sup>373</sup> cūrṇas (37.27–28), rasakriyās (37.29); drugs used for the purpose of utsādana (the promotion of granulation) (37.30)<sup>374</sup> and avasādana (the removal of an excess of granulation tissue) (37.31–32).<sup>375</sup>

Chapter thirty-eight (dravyasaṃgrahaṇīya) lists thirty-seven groups (gaṇa)<sup>376</sup> of drugs and their medicinal actions.<sup>377</sup>

These groups, named after their first member, and their actions, are described: vidārigandhādi (38.4–5),<sup>378</sup> āragvadhādi (38.6–7), sālāsārādi (38.8–9),<sup>379</sup> varuṇādi (38.10–11), vīratarvādi (38.12–13),<sup>380</sup> rodhrādi (38.14–15), arkādi (38.16–17), surasādi (38.18–19), muṣkakādi (38.20–21), pippalyādi (38.22–23),<sup>381</sup> elādi (38.24–25), vacādi and haridrādi (38.26–28), śyāmādi (38.29–30), bṛhatyādi (38.31–32), paṭolādi (38.33–34), kākolyādi (38.35–36), ūśakādi (38.37–38), sārīvādi (38.39–40), añjanādi (38.41–42), parūṣakādi (38.43–44), priyaṅgvādi and ambaṣṭhādi (38.45–47), nyagrodhādi (38.48–49), guḍūcyādi (38.50–51), utpalādi (38.52–53), mustādi (38.54–55), the group called triphalā (38.56–57), the group called trikaṭuka or tryūṣaṇa (38.58–59), āmalakyādi (38.60–61), trapvādi (38.62–63), lākṣādi (38.64–65), the smaller (laghu) pañcamūla group (38.66–67),<sup>382</sup> the greater (mahat) pañcamūla group (38.68–69), the actions of the daśamūla group which consists of a combination of the items of the smaller and greater pañcamūla groups (38.70–71), the vallī- and kaṇṭakapañcamūla groups (38.72–74), the tṛṇapañcamūla group (38.75–76);<sup>383</sup> the actions on the doṣas of the five pañcamūla groups (38.77).

A passage that may be interpolated<sup>384</sup> says that trivṛt, etc., will be described elsewhere (38.78). The drugs mentioned will be described in more detail in the Cikitsāsthāna; they may be used in decoctions, medicated oils, etc. (38.79–80).

Drugs should be carefully stored (38.81).<sup>385</sup>

The drugs mentioned in the groups may be prescribed singly or in combination with other items of the same group; a group of drugs may be prescribed singly or combined with another group or other groups, etc. (38.82).<sup>386</sup>

Chapter thirty-nine (saṃśodhanasaṃśamanīya) is devoted to drugs which purify or pacify (the doṣas).

The subjects dealt with are: medicinal plants which eliminate (the doṣas) along the upper route (ūrdhvaḥāhara); the parts of the plants used (39.3); those which eliminate them along the lower route (adhobhāhara); the parts used (39.4); those which eliminate them along both routes (ubhayatobhāhara); the juices (svarasa) of these plants should be used (39.5); drugs which evacuate the head (śirovirecana); the parts of the plants to be used; non-vegetable substances (39.6); drugs which pacify vāta, pitta, kapha (39.7–9); general principles in determining the adequate dosage for a particular patient (39.10–13); the standard dosages for a patient whose (disease, digestive fire and physical strength) are average<sup>387</sup> are one añjali<sup>388</sup> of a decoction (kvātha), one biḍā-



lapadaka<sup>389</sup> of a powder (cūrṇa), and one akṣa<sup>390</sup> of a paste (kalka) (39.14).<sup>391</sup>

Chapter forty (dravyarasaguṇavīryavipākaviññāyīya) discusses the subjects mentioned in the title.

Some authorities (ācārya) claim that substance (dravya) is pre-eminent (in pharmacology) for the following reasons: its stability (vyavasthitatva), constancy (mityatva), maintenance of its generic characteristics (svajātyavasthāna), perceptibility by the five senses (pañcendriyagrahaṇa), its being a container (āśrayatva) (of the tastes, etc.), prescriptability (ārambhasāmarthya), recognition by the śāstras (śāstra-prāmāṇya), successive dependency (of taste, etc.) on substance (kramāpekṣitatva), and curability (of diseases) by component parts of it (ekadeśasādhyaatva); shortly, substance is pre-eminent because it is a whole (niravayavatva) and an inherent cause (samavāyikāraṇa)<sup>392</sup> (40.3).

Others do not endorse this view and regard taste (rasa) as being pre-eminent for the following reasons: recognition by the āgamas, recognition by authoritative teachers (upadeśa), inferability (anumāna), and recognition by the sages (ṛṣi),<sup>393</sup> taste is included in the concept of guṇa (40.4).

Others again reject this claim and regard potency (vīrya) as pre-eminent, adducing as an argument that it is the power (vaśa) of potency which brings about the actions of drugs (karmanīṣpatti);<sup>394</sup> this potency is of two kinds: hot (uṣṇa) and cold (śīta), in conformity with the agnīṣomīyatva<sup>395</sup> of the universe; some acknowledge the existence of eight kinds of vīrya: cold, hot, oleaginous (snigdha), dry (rūkṣa), clear (viśada), mucilaginous (picchila), mild (mṛdu), and sharp (tīkṣṇa);<sup>396</sup> vīrya, due to the superiority (utkarṣa) of its inherent power, overcomes rasa;<sup>397</sup> this is illustrated by a series of specific examples (40.5)<sup>398</sup> and some rules of a more general nature (40.6–8).

Another group of authorities again disagree, considering post-digestive taste (vipāka) to be pre-eminent, because all substances, properly or improperly digested (vipakva) after ingestion, produce good or bad effects. Some advance that each taste is retained during the digestive process. Others hold that vipāka is of three types: sweet (madhura), sour (amla) and pungent (kaṭuka); this view is not correct, because an amla vipāka cannot exist according to the theory of the qualities of the mahābhūtas, while it is also rejected by the authoritative scriptures (āgama); a sour (amla) taste develops when pitta is subject to vidāha; the acceptance of a sour post-digestive taste would have as a consequence that a salty one, which results from vidāha of kapha, should also be acknowledged. The arguments of those asserting that each taste remains unaffected during the digestive process are referred to and rejected, as well as the theory that strong tastes may overpower weak ones.

The authoritative theory (āgama) says that (vi)pāka is either sweet or pungent; the sweet vipāka is heavy, the pungent type is light, in agreement with the two groups of mahābhūtas: earth and water are heavy, the remaining ones light (40.10).

Substances, in which the properties of earth and water dominate during digestion, have a sweet vipāka; when fire, air or ākāśa dominate, the vipāka is of the pungent type (40.11–12).

The four theories described, defended by those who adhere to one particular view

(prthaktvadarśin), ought to be regarded as of equal importance by a discriminating physician (40.13). Some drugs excite or alleviate the doṣas by their substance, other drugs by their potency, other ones again by their taste or post-digestive taste (40.14).

Substances are the most important, for all the other factors mentioned are dependent on them as their substrate (40.15–18).

Drugs, well known as to their nature (svabhāva), the actions of which are beyond discussion (amīmāṃsya) and inexplicable (acintya), should, based only on authoritative scripture (āgama), be used with confidence by a physician, without testing them again (40.19–21).

Chapter forty-one (dravyaviśeṣavijñānīya) is devoted to particulars of medicinal substances which manifest themselves due to the predominance of one of the five mahābhūtas.

The subjects dealt with are: properties and actions of substances with a predominance of earth, water, fire, air and ākāśa (41.4);<sup>399</sup> generalities on medicinal substances and their actions (41.5);<sup>400</sup> relationships between the mahābhautika composition of drugs and their actions (41.6);<sup>401</sup> relationships between the doṣas and the mahābhūtas (41.7–10); relationships between the eight potencies and the mahābhūtas; relationships between the potencies and the doṣas; relationships between the post-digestive tastes and the doṣas; the senses suitable to discriminate particular potencies; the effects enabling a physician to determine the post-digestive taste of a medicinal substance (41.11).

Chapter forty-two (rasaviśeṣavijñānīya) is devoted to particulars of the tastes.

The subject dealt with are: the mahābhūtas and their guṇas; the doctrine of bhūtānupraveśa;<sup>402</sup> the differentiation of taste (rasa), which is fundamentally of a watery (āpya) character, into six kinds, due to its contact (saṃsarga) with the other four mahābhūtas; the relationships between the tastes and the mahābhūtas<sup>403</sup> (42.3); the relationships between the tastes and the doṣas (42.4–6); the classification of the tastes into saumya and āgneya, as recognized by some authorities (42.7); relationships between actions of the tastes and qualities of the doṣas (42.8); actions of each of the tastes (42.9); characteristic properties and actions of each of the tastes; the effects of the excessive use of (substances with) a particular taste (42.10);<sup>404</sup> lists of substances in which a particular taste predominates (42.11);<sup>405</sup> a brief exposition on the sixty-three combinations of tastes (42.12).<sup>406</sup>

Chapter forty-three (vamanadravyavikalpavijñānīya) is devoted to preparations of emetic drugs (vamanadravya).

Its subjects are: preparations containing madana fruits, which are the best among the fruits with an emetic action (43.3);<sup>407</sup> preparations with the flowers and fruits of jīmūṭaka (43.4),<sup>408</sup> the fruits of kuṭaja (43.5),<sup>409</sup> and kṛtavedhana (43.6),<sup>410</sup> the flowers of ikṣvāku (43.7),<sup>411</sup> and various parts of dhāmārgava (43.8);<sup>412</sup> a preparation with the seeds of kṛtavedhana fruits (43.9); general rules concerning these preparations (43.10–11).

Chapter forty-four (virecanadravyavikalpaviññānīya) is devoted to preparations of purgative drugs (virecanadravya).

The subjects are: the best purgative among roots: aruṇatrivṛt,<sup>413</sup> among barks: tilvaka, among fruits: harītakī, among oils: eraṇḍataila, among expressed juices: that of kāravellikā, among milky juices (payas): that of sudhā (44.3–4); preparations with trivṛt;<sup>414</sup> preparations useful in vāta, pitta and kapha disorders (44.5–6); various preparations (44.7–9); pills (guṭikā) (44.10–11);<sup>415</sup> modakas (44.12–13);<sup>416</sup> yūṣas (44.14);<sup>417</sup> a puṭapāka preparation (44.15); lehas (44.16–22);<sup>418</sup> a modaka (44.23); a leha or guṭikā (44.24–26ab); a cūrṇa (44.26cd–27);<sup>419</sup> an āsava (44.28–30); a surā (44.31–34);<sup>420</sup> a medicated sauvīraka (44.35–40ab);<sup>421</sup> a medicated tuṣodaka (44.40cd–45);<sup>422</sup> puṭapāka preparations (44.46–47ab); medicated oils and ghees (44.47cd–49ab);<sup>423</sup> a powder soaked in cow's urine (44.49cd–51);<sup>424</sup> a modaka (44.52–54ab); the recipe of trivṛdāṣṭaka (44.54cd–59);<sup>425</sup> a preparation with tilvaka (44.60–62a);<sup>426</sup> preparations with harītakī (44.62–69); preparations with triphalā (44.70–72); preparations with caturāṅgula (44.73b–76ab);<sup>427</sup> preparations with eraṇḍataila (44.75cd–77); preparations with the milky juice of sudhā (44.78b–86ab);<sup>428</sup> a good purgative for general use (44.87–89); the six forms of pharmaceutical preparation, which are successively weaker in the following order: milky juice (kṣīra), expressed juice (rasa), paste (kalka), decoction (śṭakaṣāya), cold infusion (śītakaṣāya), and powder (cūrṇa) (44.90–91).

Chapter forty-five (dravadravyavidhi) is devoted to the description of liquid substances, their properties, and their actions.

The subjects dealt with are: water (45.3–46);<sup>429</sup> milk (45.47–64);<sup>430</sup> dadhi (45.65–83);<sup>431</sup> takra (45.84–89);<sup>432</sup> takrakūrcikā (inspissated takra)<sup>433</sup> and its liquid part (maṇḍa) (45.90); kilāṭa, piyūṣa and moraṭa (45.91);<sup>434</sup> butter (navanīta) (45.92–93);<sup>435</sup> the cream of milk (saṃtānikā) (45.94); the properties of dadhi, which are dependent on the type of milk used as its source (45.95); the various kinds of ghee (45.96–105);<sup>436</sup> sarpirmaṇḍa (the supernatant liquid portion of ghee) (45.106); the properties of old ghee (purāṇaghrīta)<sup>437</sup> (45.107–108), kumbhasarpis,<sup>438</sup> and mahāghrīta<sup>439</sup> (45.109–111);<sup>440</sup> the properties, actions and uses of oils (taila) (45.112–113);<sup>441</sup> with sesamum oil (tilataila) as the best kind (45.114–130); vaśā, medas and majjan (bone marrow) of various animals (45.131); the properties and actions of honey in general (45.132); the eight kinds of honey (45.133–140ab);<sup>442</sup> fresh and old honey (45.140cd–141); honey as the best among the excipients (yogavāhin) (45.142);<sup>443</sup> incompatibilities between honey and other substances (45.143–146); the toxicity of immature honey (45.147);<sup>444</sup> properties and actions of the sugarcane (45.148); the types of sugarcane,<sup>445</sup> their properties and actions; the tastes of the different parts of the sugarcane (45.149–156); the properties and actions of sugarcane juice, extracted by chewing,<sup>446</sup> extracted by a machine (yāntrika),<sup>447</sup> and by boiling (45.157–158);<sup>448</sup> phāṇita (inspissated sugarcane juice) (45.159);<sup>449</sup> impure and pure guda (treacle)<sup>450</sup> (45.160–161); matsyaṇḍikā,<sup>451</sup> khaṇḍa,<sup>452</sup> śarkarā<sup>453</sup> (45.162–165);<sup>454</sup> madhuśarkarā (honey sugar) (45.166);<sup>455</sup> yavāśaśarkarā (45.167);<sup>456</sup> actions of all kinds of sugar (45.168);<sup>457</sup> phāṇita from madhūka flowers (45.169); the properties and actions of alcoholic beverages (madya)

(45.170–171);<sup>458</sup> mārīvīka, the alcoholic drink prepared from grapes (mṛdvīkā); its properties and actions (45.172–173);<sup>459</sup> khārjūra, the alcoholic drink prepared from dates (kharjūra); its properties and actions (45.174–175ab);<sup>460</sup> the actions of surā (45.175cd–176ab);<sup>461</sup> śvetasurā (45.176cd–177ab);<sup>462</sup> prasannā (45.177cd–178ab);<sup>463</sup> surā made from yava (45.178cd);<sup>464</sup> madhūlaka (45.179ab);<sup>465</sup> ākṣikī (45.179cd);<sup>466</sup> kohala;<sup>467</sup> jagala;<sup>468</sup> and bakkasa<sup>469</sup> (45.180–182ab); the properties and actions of various kinds of sīdhu:<sup>470</sup> gaṇḍa (made from guḍa);<sup>471</sup> śārkara (made from sugar);<sup>472</sup> pakvarasa (made from boiled sugarcane juice);<sup>473</sup> śītarasika (made from sugarcane juice that is not boiled);<sup>474</sup> ākṣika;<sup>475</sup> and jāmbava<sup>476</sup> (45.182cd–187ab); surāśava;<sup>477</sup> madhvāśava;<sup>478</sup> maireya;<sup>479</sup> ikṣurasāśava (made from sugarcane juice);<sup>480</sup> an āśava made from madhūka flowers;<sup>481</sup> āśavas<sup>482</sup> made from various tubers, roots and fruits<sup>483</sup> (45.187cd–192ab); the properties and actions of freshly prepared and old alcoholic beverages (45.192cd–194ab); the actions of ariṣṭas<sup>484</sup> in general and of pippalyādyariṣṭa (45.194cd–197ab); properties which make an alcoholic preparation unsuitable for medicinal use (45.197cd–200ab); the bad actions of these unsuitable madyas (45.200cd–203ab); the properties and actions of a good alcoholic preparation (45.203cd–204ab); the physiological actions of an alcoholic fluid (45.204cd–205);<sup>485</sup> its effects in persons with a constitution dominated by kapha, vāta or pitta;<sup>486</sup> and in those with a sāttvika, rājasa or tāmasa mental make-up<sup>487</sup> (45.206–209); the actions of śukta<sup>488</sup> in general, of medicated śuktas, śukta made from guḍa, (sugarcane) juice, and honey (45.210–212); the actions of tuṣāmbu<sup>489</sup> and sauvīraka<sup>490</sup> (45.213); the actions of dhānyāmla<sup>491</sup> (45.214–216); the properties and actions of the urine of various animals (45.217–228).<sup>492</sup>

Chapter forty-six (annapānavidhi) is devoted to articles of diet (and medicinal substances).

The subjects are: the importance of diet (46.3); the properties and actions of the varieties of śālī rice<sup>493</sup> (46.4–7);<sup>494</sup> ṣaṣṭika rice (46.8–11);<sup>495</sup> vrīhi rice (46.12–14);<sup>496</sup> śālī grown on burnt fields (46.15); rice growing in a dry type of soil (sthalaśa)<sup>497</sup> and on irrigated fields (kaidāra)<sup>498</sup> (46.16–17); rice which has been transplanted once (ropya) or several times (atiropya) (46.18–19); inferior cereals (kudhānya)<sup>499</sup> (46.20–26);<sup>500</sup> pulses (vaidala)<sup>501</sup> (46.27–38); sesame (tila) (46.39–40);<sup>502</sup> barley (yava)<sup>503</sup> and atiyava (46.41–43ab);<sup>504</sup> wheat (godhūma) (46.43cd–44ab);<sup>505</sup> various kinds of beans (śimba) (46.44cd–48ab); the seeds of kusumbha (46.48cd); linseed (ataśī) (46.49ab); white and black mustard seeds (siddhārthaka and asitasarsapa) (46.49cd–50ab);<sup>506</sup> some generalities on all the items from rice up to mustard seeds (46.50cd–52).

The six groups of animals the flesh of which may be used are dealt with next: the aquatic (jaleśaya) animals, those living in regions rich in water (ānūpa), the domestic (grāmya), carnivorous (kravyabhuj), not-cloven-hoofed (ekaśapha) animals, and those living in jāṅgala regions; the flesh of these groups of animals increases in good qualities in the mentioned order.

The animals can also be divided into jāṅgala and ānūpa; the jāṅgala group is subdivided into eight subgroups, called respectively jaṅghāla (swift runners), viṣkīra (scat-

terers), pratuda (peckers), guhāśaya (hole-dwellers), prasaha (snatchers), paṇamrga (tree-dwellers), bileśaya (living in burrows in the earth), and grāmya (domestic);<sup>507</sup> the most important among them are the jaṅghāla and viṣkīra (46.53).

The properties and actions are described of the flesh of the jaṅghāla (46.54–58), viṣkīra (46.59–66),<sup>508</sup> pratuda (46.67–71),<sup>509</sup> guhāśaya (46.72–73), prasaha (46.74–75),<sup>510</sup> paṇamrga (46.76–77), bileśaya (46.78–84),<sup>511</sup> and grāmya animals (46.85–90ab), followed by types of flesh which are abhiṣyandin (secretion-promoting) (46.90cd–92).

The jaṅghāla group of animals<sup>512</sup> consists of: eṇa,<sup>513</sup> harīṇa,<sup>514</sup> ṛkṣa,<sup>515</sup> kuraṅga,<sup>516</sup> karāla,<sup>517</sup> kṛtamāla,<sup>518</sup> śārabha,<sup>519</sup> śvadaṇṣṭra,<sup>520</sup> pṛṣata,<sup>521</sup> cāruṣkara,<sup>522</sup> mṛgamātrkā,<sup>523</sup> etc. (46.54).

The viṣkīra group consists of: lāva,<sup>524</sup> tittiri,<sup>525</sup> kapiñjala,<sup>526</sup> vartira,<sup>527</sup> vartikā,<sup>528</sup> vartaka,<sup>529</sup> naptṛkā,<sup>530</sup> vārtika,<sup>531</sup> cakora,<sup>532</sup> kalavinka,<sup>533</sup> mayūra,<sup>534</sup> krakara,<sup>535</sup> upacakra,<sup>536</sup> kukkuṭa,<sup>537</sup> sāraṅga,<sup>538</sup> śatapattra,<sup>539</sup> kutittiri,<sup>540</sup> kuruvāhaka,<sup>541</sup> yavāla,<sup>542</sup> etc. (46.59).

The pratuda group consists of: kapota,<sup>543</sup> pārāvata,<sup>544</sup> bhṛṅgarāja,<sup>545</sup> parabhrta,<sup>546</sup> koyaṣṭika,<sup>547</sup> kuliṅga,<sup>548</sup> ṛhakuliṅga,<sup>549</sup> gokṣvedaka,<sup>550</sup> diṇḍimānavaka,<sup>551</sup> śatapattraka,<sup>552</sup> mātrṇindaka,<sup>553</sup> bhedāśin,<sup>554</sup> śuka,<sup>555</sup> sārīkā,<sup>556</sup> valguli,<sup>557</sup> giriśa,<sup>558</sup> laṭvā,<sup>559</sup> laṭṭuśaka,<sup>560</sup> sugrha,<sup>561</sup> khañjarīta,<sup>562</sup> hārīta,<sup>563</sup> dātyūha,<sup>564</sup> etc. (46.67).

The guhāśaya group consists of: siṃha (lion),<sup>565</sup> vyāghra (tiger),<sup>566</sup> vṛka (wolf),<sup>567</sup> tarakṣu (hyena),<sup>568</sup> ṛkṣa (bear),<sup>569</sup> dvīpīn,<sup>570</sup> mārjāra (wild cat),<sup>571</sup> śṛgāla (jackal),<sup>572</sup> mṛgervāraka,<sup>573</sup> etc. (46.72).

The prasaha group consists of: kāka,<sup>574</sup> kaṅka,<sup>575</sup> kurara,<sup>576</sup> cāśa,<sup>577</sup> bhāsa,<sup>578</sup> śaśaghātīn,<sup>579</sup> ulūka,<sup>580</sup> cilli,<sup>581</sup> śyena,<sup>582</sup> ṛḍhra,<sup>583</sup> etc. (46.74).

The paṇamrga group consists of: madgumūṣika,<sup>584</sup> vṛkṣaśāyikā,<sup>585</sup> avakuśa,<sup>586</sup> pūṭighāsa,<sup>587</sup> vānara,<sup>588</sup> etc. (46.76).

The bileśaya group consists of: śvāvidh,<sup>589</sup> śalyaka,<sup>590</sup> godhā,<sup>591</sup> śaśa,<sup>592</sup> vṛṣadamaśa,<sup>593</sup> lopaka,<sup>594</sup> lomaśakarna,<sup>595</sup> kadali,<sup>596</sup> mṛgapriyaka,<sup>597</sup> ajagara,<sup>598</sup> sarpa (a snake),<sup>599</sup> mūṣika (mouse or rat),<sup>600</sup> nakula,<sup>601</sup> mahābabhru,<sup>602</sup> etc. (46.78).

The grāmya group consists of: aśva (horse),<sup>603</sup> aśvatura (mule),<sup>604</sup> gaus (cow),<sup>605</sup> khara (donkey),<sup>606</sup> uṣṭra (camel),<sup>607</sup> basta (goat), urabhra (sheep), medaḥpucchaka (fat-tailed sheep),<sup>608</sup> etc. (46.85).

The ānūpa animals are subdivided into those called kūlacara (living along banks), plava (divers and swimmers), kośastha (living within shells), pādin (reptiles, crustaceans, etc.), and matsya (fishes) (46.93).

The kūlacara group<sup>609</sup> consists of: gaja (elephant),<sup>610</sup> gavaya,<sup>611</sup> mahiṣa (buffalo),<sup>612</sup> ruru,<sup>613</sup> camara,<sup>614</sup> śmāra,<sup>615</sup> rohita,<sup>616</sup> varāha (pig),<sup>617</sup> khaḍgin (rhinoceros),<sup>618</sup> gokarṇa,<sup>619</sup> kālapucchaka,<sup>620</sup> ūdra,<sup>621</sup> nyaṅku,<sup>622</sup> aranyagavaya,<sup>623</sup> etc. (46.94).

The plava group consists of: haṃsa,<sup>624</sup> sārāsa,<sup>625</sup> krauñca,<sup>626</sup> cakravāka,<sup>627</sup> kurara,<sup>628</sup> kādamba,<sup>629</sup> kāraṇḍava,<sup>630</sup> jīvañjīvaka,<sup>631</sup> baka,<sup>632</sup> balākā,<sup>633</sup> puṇḍarīka,<sup>634</sup> plava,<sup>635</sup> śārārīmukha,<sup>636</sup> nandīmukha,<sup>637</sup> madgu,<sup>638</sup> utkrośa,<sup>639</sup> kācākṣa,<sup>640</sup> mallikākṣa,<sup>641</sup> śuklākṣa,<sup>642</sup> puṣkaraśāyikā,<sup>643</sup> koṇālaka,<sup>644</sup> ambukukkuṭikā,<sup>645</sup> megharāva,<sup>646</sup> śvetavārāla,<sup>647</sup> etc. (46.105).

The kośastha group consists of: śaṅkha,<sup>648</sup> śaṅkhanaka,<sup>649</sup> śukti,<sup>650</sup> śambūka,<sup>651</sup> bhallūka,<sup>652</sup> etc. (46.108).

The pādin group consists of: kūṛma (turtle or tortoise),<sup>653</sup> kumbhīra,<sup>654</sup> karkaṭaka (a crab),<sup>655</sup> kṛṣṇakarkāṭaka, śiśumāra,<sup>656</sup> etc. (46.109).

The properties and actions are described of the flesh of the kūlacara (46.94–104)<sup>657</sup> and plava animals.<sup>658</sup> (46.105–107).

The properties and actions of their flesh follow (46.110–111).

The two groups of fishes<sup>659</sup> are dealt with: those living in rivers and those living in the sea (46.112); the names of river fishes; the general properties and actions of their flesh; the properties and actions of the flesh of particular river fishes and those living in ponds and lakes (46.113–117);<sup>660</sup> the names of sea fishes; the general properties and actions of their flesh (46.118–119); the comparative actions of the flesh of fishes living in rivers, the sea and various water reservoirs (46.120–121); differences among the properties of various body parts of fishes (46.122–124).<sup>661</sup>

River fishes are:<sup>662</sup> rohita,<sup>663</sup> pāthīna,<sup>664</sup> pāṭalā,<sup>665</sup> rājīva,<sup>666</sup> varmi,<sup>667</sup> goma-tsya,<sup>668</sup> kṛṣṇamatsya,<sup>669</sup> vāguñjāra,<sup>670</sup> murla,<sup>671</sup> sahasradamṣṭra,<sup>672</sup> etc. (46.113).

Sea fishes are: timi,<sup>673</sup> timiṅgila,<sup>674</sup> kuliśa,<sup>675</sup> pākamatsya,<sup>676</sup> nirula,<sup>677</sup> nandivā-laka,<sup>678</sup> makara,<sup>679</sup> gargara,<sup>680</sup> candraka,<sup>681</sup> mahāmīna,<sup>682</sup> rājīva,<sup>683</sup> etc. (46.118).

Harmful kinds of flesh are discussed (46.126–128);<sup>684</sup> comparative qualities of flesh, depending on the sex and size of the animal (46.129); relative heaviness and lightness of flesh, according to the body part, organ, and sex of the animal (46.130–133); actions on the doṣas of the flesh of birds, dependent on their feeding habits (46.134–135); other criteria for assessing particular properties of flesh (46.135cd–138).

The chapter continues with a list of fruits (46.139);<sup>685</sup> the general properties and actions of these fruits (46.140); the properties and actions of a series of particular fruits (46.141–162); a group of fruits (46.163–165); another series of fruits (46.166–176); a group of fruits (46.177–181); a series of fruits again (46.182–207);<sup>686</sup> the actions (vīrya) of fruit pulps (majjan) are similar to those of the fruits themselves (46.208); ripe (paripakva) fruits should be used, with the exception of bilva (46.209); fruits should not be used when unripe, over-ripe, etc. (46.210);<sup>687</sup> the properties and actions of a series of vegetables (śāka) (46.211–220); the pippalyādi group, its general properties and actions (46.221–222); the properties and actions of items of this group (46.223–248); the cuccvādi group, its general properties and actions (46.249–250); the properties and actions of items of this group (46.251–252); the properties and actions of the milky juice of the kṣīravṛkṣas, utpala, etc. (46.253); the punarnavādi group, its properties and actions (46.254–255); the taṇḍulīyakādi group, its general properties and actions (46.256–258ab); the properties and actions of items belonging to this group (46.258cd–261); the maṇḍūkapaṇṇyādi group, its general properties and actions (46.262–263); properties and actions of items belonging to this group (46.264–273); the loṇikādi group, its general properties and actions (46.274–275); the properties and actions of items belonging to this group (46.276–278);<sup>688</sup> the actions and properties of tāmbūla (betel leaves) (46.279–280);<sup>689</sup> the properties and actions of a series of flowers (46.281–289);<sup>690</sup> the properties and actions of the young shoots

(karīra) of a number of plants (46.290–292);<sup>691</sup> the properties and actions of mushrooms (bhūmija), dependent on their substrate (46.293);<sup>692</sup> the actions of pinyāka (oil-cakes),<sup>693</sup> tilakalka (sesamum paste), sthūnikā,<sup>694</sup> dried vegetables (śuṣkaśāka), all sorts of vatakas (small balls), siṇḍākī<sup>695</sup> (46.294–295); general properties of vegetables;<sup>696</sup> they are heavier in the following order: flowers, leaves, fruits, stalks (nāla), and tubers (kanda) (46.296); unsuitable vegetables (46.297); a list of tuberous vegetables (kanda); their general properties and actions (46.298–299); the properties and actions of a number of tubers and rhizomes (46.300–309);<sup>697</sup> the properties and actions of the inner parts of the top portions of the stems (mastakamajjan) of some palms (tāla, nārikela, kharjūra) (46.310–311);<sup>698</sup> tubers which are unsuitable (46.312); the salts (lavaṇa),<sup>699</sup> their properties and actions in the mentioned order (46.313);<sup>700</sup> the properties and actions of particular kinds of salt (46.314–320);<sup>701</sup> three kinds of salt which are known as kaṭulavaṇa: ūṣasūta (originating from an ūṣa type of soil),<sup>702</sup> vālukaila (originating from a sandy soil),<sup>703</sup> and śailamūlākaroḍbhava (originating from particular mines)<sup>704</sup> (46.321);<sup>705</sup> the properties and actions of a number of caustic substances (kṣāra) (46.322–325);<sup>706</sup> the properties and actions of gold, silver, copper, bell-metal (kāṁṣya), iron, tin (trapu) and lead (sīsa), followed by those of some precious and semi-precious stones (maṇi) (46.326–330);<sup>707</sup> any substance left without a description should be examined by a physician in order to determine its properties (46.331); the best (praśasta, pravara, śreṣṭha) among the substances belonging to a particular group (46.332–339);<sup>708</sup> prepared foods, their properties and actions:<sup>709</sup> lājamaṇḍa (46.340cd–341ab),<sup>710</sup> peyā (46.341cd–342ab)<sup>711</sup> and vilepī (46.342cd–344ab),<sup>712</sup> followed by distinctive characteristics of these preparations (46.344cd–345ab);<sup>713</sup> pāyasa (46.345cd);<sup>714</sup> kṛśārā (46.346ab);<sup>715</sup> odana (boiled rice) (46.346cd–349ab);<sup>716</sup> sūpa (soup) (46.349cd);<sup>717</sup> prepared vegetables (46.350); meat dishes (46.351–353ab); pariśuṣkamāṁsa (fried or toasted meat) (46.353cd–354ab);<sup>718</sup> ullupta (46.354cd–355ab);<sup>719</sup> śūlya (broiled on the spit or skewered) and pradigdhā meat (46.355cd–356ab);<sup>720</sup> ullupta, bharjita (fried), piṣṭa (minced), pratapta (slightly fried), kandupācīta (fried with mustard paste),<sup>721</sup> pariśuṣka, pradigdhā, śūlya, and other kinds of meat dishes, when prepared with oil or ghee (46.356cd–358); māṁsarasa (meat broth) (46.359–361ab);<sup>722</sup> saurāva (46.362);<sup>723</sup> broth without the meat (46.363); khāniṣka (46.364ab);<sup>724</sup> vesavāra (46.364cd–366ab);<sup>725</sup> mudgayūṣa and rāgaśāḍava (46.366cd–368ab);<sup>726</sup> various kinds of yūṣa<sup>727</sup> (46.368cd–375); khaḍa and kāmḍalika<sup>728</sup> (46.376ab); other sour yūṣas, prepared with pomegranate juice, dadhi and takra (46.376cd–377); alṛṭa- and kṛṭayūṣas (46.379);<sup>729</sup> general properties of sour yūṣas (46.380); the ingredients of a kāmḍalika (46.381ab); general properties of foods prepared with sesamum, dried vegetables, virūḍhaka,<sup>730</sup> and siṇḍākī (46.381cd–382); rāgaśāḍavas (46.383);<sup>731</sup> rasālā (46.384ab);<sup>732</sup> dadhi to which guḍa has been added (46.384cd); the preparation of a mantha,<sup>733</sup> its properties and actions (46.385–388ab);<sup>734</sup> various pānakas, their properties and actions (46.388cd–391);<sup>735</sup> various kinds of confectionery (bhakṣya), their properties and actions;<sup>736</sup> confectionery prepared with milk (46.392cd–393ab);<sup>737</sup> ghr̥tapūra (46.393cd–394ab);<sup>738</sup> confectionery prepared with guḍa (46.394cd–395ab);<sup>739</sup> madhuśīrṣaka,<sup>740</sup> saṁyāva,<sup>741</sup> pūpas<sup>742</sup> and modakas (46.395cd–396ab); saṭṭaka (46.396cd–397ab);<sup>743</sup> viṣyanda (46.397cd–

398ab);<sup>744</sup> food preparations called phenaka (46.398cd–400ab),<sup>745</sup> pālala<sup>746</sup> and śaṣkult<sup>747</sup> (46.400cd); foods prepared from rice flour (paiṣṭika) (46.401), pulses (vaidala)<sup>748</sup> (46.402), māsa beans (46.403ab), kūrīkā<sup>749</sup> (46.403cd), and virūdhaka (sprouted grains) (46.404);<sup>750</sup> foods prepared with ghee (46.405) or oil (46.406); the properties and actions of some groups of confectionery (46.407);<sup>751</sup> the properties and actions of confectionery prepared in an earthenware pan (kapāla) on a charcoal fire (46.408);<sup>752</sup> confectionery prepared from kilāta and similar substances (46.409ab); kulmāsa (46.409cd);<sup>753</sup> vātya (46.410ab);<sup>754</sup> dhānā<sup>755</sup> and ulumbā<sup>756</sup> (46.410cd); śaktu (46.411–412);<sup>757</sup> lāja (46.413);<sup>758</sup> lājasaktu (46.414);<sup>759</sup> prṭhuka (46.415);<sup>760</sup> rice flour (tāṇḍulapiṣṭa), new and old (46.416–417ab); anupānas (accompanying drinks);<sup>761</sup> general rules concerning the selection of an anupāna (46.419–421ab); the very best among the anupānas is rain (maighya) water, kept in a clean vessel (46.421cd); special rules (46.423–433); the best anupāna is rain (māhendra) water or the water to which one is accustomed; warm water is recommended in vāta and kapha disorders, cold water in those caused by pitta or blood (46.434–435ab); advantages of anupānas in general (46.435cd–438ab); the effects of an anupāna taken prior to a meal, during a meal, and afterwards (46.438cd–439ab); the disadvantages of not taking an anupāna (46.439cd–440ab); contra-indications for an anupāna (46.440cd–441ab); behavioural rules for the period after taking an anupāna (46.441cd–442); heaviness and lightness of articles of diet (46.443–445); rules for the (royal) kitchen (mahānasa) (46.446–448); rules for serving the food; the materials for the vessels, plates, etc., dependent on the type of food or drink (46.449–459ab);<sup>762</sup> the dining room (46.459cd–460ab); the order in which particular foods should be consumed (46.460cd–464); rules for taking a meal (46.465–466ab); the beneficial effects of observing these rules (46.466cd–468ab); the times for taking a meal, dependent on the season (46.468cd–471ab); the bad effects of neglecting these rules (46.471cd–476ab); foods to be discarded (46.476cd–478ab); rules for enjoying tasteful food (46.478cd–482ab); rules to be observed after a meal (46.482cd–490); special rules regarding particular foods and drinks (46.491–497ab); the causes of disorders of the digestive fire (vahnivyāpad) (46.497cd–498);<sup>763</sup> digestive disorders (ajīrṇa) are of three types: āma, vidagdha and viṣṭabdhā, caused by kapha, pitta and vāta respectively; some distinguish a fourth type, due to a remnant of the rasa (rasaśeṣa) (46.499);<sup>764</sup> other causes of improper digestion (46.500–501);<sup>765</sup> the symptoms of the four types of ajīrṇa (46.502–503);<sup>766</sup> the upadravas (complications) of ajīrṇa (46.504);<sup>767</sup> the treatment of ajīrṇa (46.505–507); the harmfulness of samaśana,<sup>768</sup> viśamaśana<sup>769</sup> and adhyaśana<sup>770</sup> (46.508–509); the treatment of the vidagdha type of ajīrṇa (46.510); the treatment of vidāha occurring immediately after the ingestion of a meal (46.511); the treatment of the rasaśeṣa type of ajīrṇa (46.512); a warning regarding the āma type (46.513); the characteristic actions of a first series of ten guṇas: śīta (cold), uṣṇa (hot), snigdha (oleaginous), rūkṣa (dry), picchila (mucilaginous), viśada (clear), tīkṣṇa (sharp), mṛdu (soft), guru (heavy), and laghu (light) (46.514–519); the characteristic actions of a second series of ten guṇas: drava (liquid), sāndra (viscid), ślakṣṇa (smooth), karkaśa (rough), sugandha (fragrant), durgandha (bad-smelling), sara (flowing), manda (sluggish), vyavāyin (diffusive), vikāsin (relaxating), āśukārin



(acting quickly), and sūkṣma (subtle) (46.520–525ab);<sup>771</sup> the physiology of digestion (46.525cd–528); the impurities (mala) derived successively from the first six of the seven bodily elements (dhātu); kapha (phlegm) derives from rasa, pitta (bile) from rakta, the products excreted from the bodily orifices (khamala) from māṃsa, sveda (sweat) from medas, nails and hairs from asthi, the excretory product of the eyes (netraviṣ) and the sebum (sneha) of the skin from majjan (46.529);<sup>772</sup> a meal at night is permissible when ajīrṇa is suspected, but not a meal next morning (46.530–531).

## Chapter 2

### Nidānasthāna

Chapter one is devoted to vāta diseases (vātavyādhi).<sup>1</sup>

The subjects dealt with are: Suśruta's questioning of Dhanvantari on the seats and actions of vāta in a normal and abnormal state and the diseases caused by it (1.3–4); the nature of vāta, called Bhagavant Svayambhū (1.5–7ab);<sup>2</sup> the qualities, actions and seats of vāta (1.7cd–9ab);<sup>3</sup> the functions of vāta when in a normal state (1.9cd–10); the five types of vāta (1.11–12); the seats and actions of and the disorders caused by prāṇa, udāna, samāna, vyāna and apāna (1.13–21ab);<sup>4</sup> disorders caused by excited vāta when staying in the āmāśaya (1.22cd–23ab),<sup>5</sup> pakvāśaya (1.23cd–24ab),<sup>6</sup> ears (and other sense organs) (1.24cd),<sup>7</sup> skin (1.25),<sup>8</sup> blood, muscular tissue, fatty tissue, sirās, snāyus, junctures (sandhi), bones, bone marrow, and semen (1.26–29);<sup>9</sup> disorders caused by a generalized excitation of vāta (1.30–31ab); disorders caused by an association of vāta with pitta, kapha, or blood (1.31cd–34ab);<sup>10</sup> disorders caused when prāṇa, udāna, samāna, apāna, or vyāna are covered (āvrta) by pitta or kapha (1.34cd–39);<sup>11</sup> the aetiology and pathogenesis of vātarakta,<sup>12</sup> and the occurrence of related disorders caused by the corruption of blood (rakta) by pitta and kapha (1.40–44);<sup>13</sup> the symptoms of corruption of blood by vāta, pitta, kapha, or all three doṣas together (1.45–46);<sup>14</sup> the prodromes of vātarakta (1.47);<sup>15</sup> its way of spreading over the body (1.48); prognostic features of vātarakta (1.49–50ab);<sup>16</sup> descriptions of ākṣepaka (1.50cd–51),<sup>17</sup> apātānaka<sup>18</sup> and danḍāpātānaka<sup>19</sup> (1.52–53ab), hanugraha (1.53cd),<sup>20</sup> dhanuḥstambha<sup>21</sup> and its two varieties: ābhyantarāyāma<sup>22</sup> and bāhyāyāma<sup>23</sup> (1.54–57ab); prognostic features of dhanuḥstambha (1.57cd); the causes of ākṣepaka (1.58); incurable types of apātānaka (1.59); the pathogenesis and symptoms of pakṣāghāta (1.60–62);<sup>24</sup> degrees of curability, etc., of pakṣāghāta (1.63);<sup>25</sup> the pathogenesis and symptomatology of apatantraka (1.64–66);<sup>26</sup> the aetiology of manyāstambha (1.67);<sup>27</sup> the aetiology, pathogenesis, symptoms, prodromes and prognosis of ardita (1.68–73);<sup>28</sup> the pathogenesis and symptoms of gr̥dhrasī (1.74),<sup>29</sup> viśvācī (1.75),<sup>30</sup> kroṣṭukaśiras (1.76),<sup>31</sup> khañjatva<sup>32</sup> and paṅgutva,<sup>33</sup> kalāyakhañjatva (1.78),<sup>34</sup> vātakañṭaka (1.79),<sup>35</sup> pādadhā (1.80),<sup>36</sup> pādahaṛṣa (1.81),<sup>37</sup> avabhūka (1.82),<sup>38</sup> bādhirya (1.83),<sup>39</sup> karṇaśūla (1.84),<sup>40</sup> mūkatva,<sup>41</sup> miṇminatva<sup>42</sup> and gadgadatva<sup>43</sup> (1.85), tūnī (1.86),<sup>44</sup> pratitūnī (1.87),<sup>45</sup> ādhmāna,<sup>46</sup> (1.88) pratyādhmāna (1.89),<sup>47</sup> vātāsthilā (1.90),<sup>48</sup> and pratyasthīlā (1.91).<sup>49</sup>

Chapter two is devoted to haemorrhoids (arsāṃsi).<sup>50</sup>

The subjects dealt with are: the six types of haemorrhoids: due to vāta, pitta, kapha, blood, concerted action of the doṣas, and those which are congenital (sahaja)

(2.3);<sup>51</sup> their aetiology and pathogenesis (2.4); the anatomical position of the anal region (guda); the three folds (vali) found in it, called pravāhaṇī, visarjanī and saṃvaraṇī; their position, shape and colour;<sup>52</sup> the position of the anal lip (gudaṣṭha) and the distance of the first fold from the anal lip (2.5–7);<sup>53</sup> the general prodromes,<sup>54</sup> which, when the haemorrhoids have arisen, develop into symptoms (2.8–9); the characteristics and symptoms of haemorrhoids caused by vāta, pitta, kapha, blood, and concerted action of the doṣas (2.10–14);<sup>55</sup> the characteristics and symptoms of congenital haemorrhoids (2.15);<sup>56</sup> features determining the prognosis (2.16);<sup>57</sup> fleshy growths resembling haemorrhoids occurring in other regions of the body:<sup>58</sup> the penis,<sup>59</sup> female genitals,<sup>60</sup> umbilical region,<sup>61</sup> ears, eyes, nose, and mouth<sup>62</sup> (2.17); warts (carmakīla) (2.18);<sup>63</sup> features of warts associated with the doṣas and blood (2.19–20);<sup>64</sup> the six types of haemorrhoids caused by two doṣas (2.22);<sup>65</sup> the prognosis of haemorrhoids dependent on the doṣas involved (2.23–24);<sup>66</sup> a serious type of haemorrhoids (2.25–26).

Chapter three is devoted to urinary calculi (āsmarī).

Its subjects are: the four types of āsmarī, caused by kapha, vāta, pitta, and semen (śukra) respectively (3.3);<sup>67</sup> the aetiology and pathogenesis (3.4); the prodromes (3.5–6); the symptoms (3.7);<sup>68</sup> the aetiology, pathogenesis, symptomatology, form, colour, consistence, etc., of calculi caused by kapha,<sup>69</sup> pitta,<sup>70</sup> and vāta<sup>71</sup> (3.8–10); the occurrence of these three types of calculi in children;<sup>72</sup> calculi due to semen occur in adults (3.11); the aetiology, pathogenesis and symptomatology of calculi due to semen (śukrāśmarī) (3.12); changes occurring in calculi may give rise to gravel (śarkarā) and related substances, resembling sand (sikatā) or ashes (bhasman); the way these substances are produced and the symptoms they bring about (3.13–16ab);<sup>73</sup> complications of gravel (3.16cd–17); the anatomy of the urinary bladder (basti) (3.18–20ab); its physiology (3.20cd–24ab); the pathogenesis of calculi (3.24cd–27ab); disorders caused by abnormal actions of vāta on the bladder: the various types of mūtrāghāta, prameha, śukradoṣa and mūtradoṣa (3.17cd–28).

Chapter four is devoted to anorectal fistulas (bhagandara).<sup>74</sup>

Its subjects are: the five types of bhagandara: śataponaḥ,<sup>75</sup> uṣṭragrīva, parisrāvin, śambūkāvarta, and unmārgin, caused, in the mentioned order, by vāta, pitta, kapha, concerted action of the three doṣas, and exogenous factors (āgantunimitta); the etymology of bhagandara;<sup>76</sup> the disorder is called piḍakā when there is no opening (abhinna) and bhagandara (sensu stricto) when one or more openings are present (bhinna) (4.3); the prodromes (4.4); the aetiology of bhagandara:<sup>77</sup> the pathogenesis and symptomatology of each of the five types (4.5–9);<sup>78</sup> the difference between a common piḍakā (boil) in the region of the anus and the piḍakā (abscess) that may develop into a fistula (4.10); the characteristics of the latter type of piḍakā (4.11); the prodromes of bhagandara sensu stricto (4.12); the degrees of curability of bhagandara (4.13).

Chapter five is devoted to kuṣṭha.<sup>79</sup>

The subjects are: the aetiology and pathogenesis of kuṣṭha (5.3);<sup>80</sup> the prodromes

(5.4);<sup>81</sup> the eighteen types of kuṣṭha, divided into seven major (mahākuṣṭha) and eleven minor ones (kṣudrakuṣṭha);<sup>82</sup> the seven mahākuṣṭhas are: aruṇa, udumbara, ṛṣyajihva, kapāla, kākaṇaka, puṇḍarīka, and dadru; the eleven kṣudrakuṣṭhas are: sthūlārūṣka, mahākuṣṭha, ekakuṣṭha, carmadala, visarpa, parisarpa, sidhma, vicarcikā, kiṭibha, pāmā, and rakasā (5.5); the association of these kuṣṭhas with the doṣas and with parasites (krimi); the order of the degree of difficulty to manage (kriyā-gurutva) them; the order of their ability to invade the dhātus (dhātvanupraveśa), and of their curability, respectively incurability (5.6–7); the features of each of the mahākuṣṭhas, arranged according to the doṣa mainly involved: vāta is the main doṣa in the aruṇa type;<sup>83</sup> pitta predominates in (a)udumbara,<sup>84</sup> ṛṣyajihva,<sup>85</sup> kapālakuṣṭha<sup>86</sup> and kākaṇaka;<sup>87</sup> kapha is predominant in p(a)uṇḍarīka<sup>88</sup> and dadru<sup>89</sup> (5.8); the characteristic features of the kṣudrakuṣṭhas: sthūlārūṣka,<sup>90</sup> mahākuṣṭha<sup>91</sup> (5.9), ekakuṣṭha,<sup>92</sup> carmadala<sup>93</sup> (5.10), visarpa<sup>94</sup> (5.11), parisarpa,<sup>95</sup> sidhma<sup>96</sup> (5.12), vicarcikā<sup>97</sup> (5.13), kiṭibha,<sup>98</sup> pāmā<sup>99</sup> (5.14), kacchū,<sup>100</sup> and rakasā<sup>101</sup> (5.15); aruṣ (= sthūlārūṣka), sidhma, rakasā, mahākuṣṭha and ekakuṣṭha arise from kapha, parisarpa arises from vāta, the remaining ones arise from pitta (5.16);<sup>102</sup> kilāsa is related to kuṣṭha and of three types: caused by vāta, pitta and kapha; it differs from kuṣṭha in being restricted to the skin and having no discharge (aparīśrāvīn); the characteristic signs of the three types are described, followed by incurable forms (5.17);<sup>103</sup> symptoms of kuṣṭha due to vāta, pitta and kapha (5.18);<sup>104</sup> the incurability of puṇḍarīka and kākaṇaka (5.19);<sup>105</sup> kuṣṭha, which makes its appearance in the skin first, invades successively the other dhātus if left untreated (5.20–21); the features of kuṣṭha when located in the skin, blood, muscular tissue, fatty tissue, bones, marrow, and semen (5.22–27);<sup>106</sup> the child of parents whose female procreational fluid (śoṇita) and semen are corrupted by the kuṣṭhadoṣa should be regarded as affected by the disease (kuṣṭhita) (5.28); kuṣṭha located in the skin, blood and muscular tissue is curable; it is palliable when located in the fatty tissue, but incurable when located in the remaining dhātus (5.29); kuṣṭha as a pāparoga due to sinful acts (5.30);<sup>107</sup> when a person suffering from kuṣṭha dies, the disease will become manifest again in his or her next life (5.31); a proper diet and behaviour, suitable medicines, and religious austerities (tapas) may overcome the disease and lead to a good life (5.32–33); kuṣṭha, jvara (fever), śoṣa (wasting diseases), netrābhiṣyanda<sup>108</sup> and epidemic diseases (aupasargikaroga)<sup>109</sup> spread among human beings due to frequent contact in general (abhyāsa) and bodily contact (gātrasaṃsparśa), by means of breath (niśvāsa), due to sharing the same food, sharing the same bed, and using the same seats, by means of clothing, garlands, and cosmetics (anulepana) (5.34).

Chapter six is devoted to prameha (urinary disorders).

Its subjects are: the general aetiology (6.3)<sup>110</sup> and pathogenesis (6.4);<sup>111</sup> the general prodromes (6.5);<sup>112</sup> features present in all types of prameha are turbidity (āvilatva) of the urine and polyuria (prabhūtamūtratva) (6.6); all the pramehas, as well as the piḍakās (associated with them), arise from all the doṣas together (6.7);<sup>113</sup> kapha<sup>114</sup> gives rise to udakameha, ikṣuvālikāmeha, surāmeha,<sup>115</sup> sikatāmeha, śanairmeha, lavaṇameha,<sup>116</sup>

piṣṭameha,<sup>117</sup> sāndrameha, śukrameha, and phenameha;<sup>118</sup> these ten pramehas are curable, because the doṣa involved and the corrupted bodily elements (dūṣya) can be corrected by the same remedial measures;<sup>119</sup> pitta gives rise to nīlameha, haridrāmeha, amlameha,<sup>120</sup> kṣārameha, mañjiṣṭhāmeha, and śonitameha;<sup>121</sup> these six pramehas are palliable, because the doṣa involved and the corrupted bodily elements are dissimilar with regard to corrective measures;<sup>122</sup> vāta gives rise to sarpirmeha,<sup>123</sup> vasāmeha,<sup>124</sup> kṣaudrameha,<sup>125</sup> and hastimeha; these four pramehas are incurable on account of their very serious nature (mahātyayikatva)<sup>126</sup> (6.8); the kapha types are caused by kapha, in combination with vāta, pitta and fatty tissue (medas), the pitta types by pitta, in combination with vāta, kapha, blood and fatty tissue, the vāta types by vāta, in combination with kapha, pitta, vasā, bone marrow and fatty tissue (6.9); the characteristics of each of the ten types of prameha caused by kapha (6.10),<sup>127</sup> each of the six types caused by pitta (6.11),<sup>128</sup> and each of the four types caused by vāta (6.12);<sup>129</sup> the complications of the pramehas brought about by each of the three doṣas (6.13);<sup>130</sup> the ten types of piḍakā arising from the three doṣas in prameha patients with a large amount of fatty tissues (vasā and medas): śarāvikā, sarṣapikā, kacchapikā, jālinī, vinatā, putrinī, masūrikā, alajī, vidārikā, and vidradhikā (6.14);<sup>131</sup> the characteristics of each of these types (6.15–19);<sup>132</sup> the aetiological factors of the piḍakās are the same as those of prameha (6.20ab);<sup>133</sup> features leading to incurability of the piḍakās (6.20c-f);<sup>134</sup> the incurability of piḍakās caused by vāta which has affected medas, majjan and vasā (6.21); the signs indicating that a patient should be diagnosed as suffering from prameha (6.22–23); a patient with piḍakās and severe complications suffers from madhumeha<sup>135</sup> and is incurable; the characteristics of the behaviour of such a patient are described (6.24–25); the various types of prameha are compared to mixed colours<sup>136</sup> arising from combinations of the five colours (6.26);<sup>137</sup> all types of prameha, if not properly treated, develop into madhumeha, thus becoming incurable (6.27).

Chapter seven is devoted to udara (abdominal swelling).<sup>138</sup>

Its subjects are: the eight types of udara: caused by vāta, pitta, kapha, all three doṣas, and those called plīhodara, baddhaguda, āgantuka, and dakodara (7.4);<sup>139</sup> the aetiology and pathogenesis of udara (7.5–7ab);<sup>140</sup> the general prodromes (7.7cd–8ab);<sup>141</sup> the symptoms of udara caused by vāta, pitta, kapha (7.8cd–11ab);<sup>142</sup> the aetiology and symptomatology of udara caused by concerted action of the three doṣas; this type is also called dūṣyudara (7.11cd–14a);<sup>143</sup> the aetiology, pathogenesis and symptomatology of plīhodara (splenomegalia), located on the left side of the abdomen (7.14b–16ab);<sup>144</sup> when the same features appear on the right side, due to involvement of the liver, the disorder is called yakṛddālyudara (7.16cd);<sup>145</sup> the aetiology and symptomatology of baddhaguda (intestinal obstruction) (7.17–19a);<sup>146</sup> the aetiology and symptomatology of parisrāvyudara (intestinal perforation) (7.19b–21a);<sup>147</sup> the aetiology, pathogenesis and symptomatology of dakodara (ascites) (7.21b–23);<sup>148</sup> the general symptoms of jāthara (= udara) (7.24);<sup>149</sup> ultimately, accumulation of water in the abdomen develops in all types of jāthara; this makes them unsuitable to treatment (7.25).<sup>150</sup>

Chapter eight is devoted to mūḍhagarbha (foetal malpresentation) and some related obstetrical topics.<sup>151</sup>

The subjects dealt with are: the aetiology and pathogenesis of mūḍhagarbha (8.3);<sup>152</sup> the classification into four types: kīla, pratikhura, bījaka and parigha; when the arms, legs and head of the child point upwards, thus obstructing the opening of the uterus like a peg (kīla), the malposition is called kīla;<sup>153</sup> when the hands, feet and head come out, while the remaining part of the body remains stuck, it is a case of pratikhura;<sup>154</sup> when the head and one limb come out, it is called bījaka;<sup>155</sup> when the foetus covers the opening of the uterus like a bar for closing a door (parigha), it is called parigha;<sup>156</sup> the classification of mūḍhagarbha into these four types, adopted by some authorities,<sup>157</sup> is not correct, because abnormalities of vāta lead to several kinds of obstruction in the birth channel; this makes the number of four insufficient (8.4); actually, mūḍhagarbha is of eight types:<sup>158</sup> presentation by the two lower extremities or by one lower limb with the other one flexed;<sup>159</sup> the foetus may present itself with both lower limbs flexed over the body, while the buttocks are presented obliquely;<sup>160</sup> presentation by the lateral part of the chest (pārśva), thus obstructing the opening of the uterus;<sup>161</sup> presentation by one arm with the head turned sideways;<sup>162</sup> presentation by both arms and with bent head; presentation by hands, feet and back and with the trunk bent; presentation by one lower limb, while the other points towards the anus (8.5);<sup>163</sup> the last two types of mūḍhagarbha cannot be managed; the remaining types should not be accepted for treatment when the woman in child-bed is delirious, suffers from convulsions (ākṣepaka), a vaginal prolapse (yonibhraṃśa), yonisamvaraṇa,<sup>164</sup> makkalla, shortness of breath, cough, or giddiness (8.6);<sup>165</sup> the normal delivery (8.7–8); expulsion of the foetus up to the fourth month is called garbhavicyuti (abortion);<sup>166</sup> when it occurs later, from the fifth or sixth month onwards, it is called garbhapāta (8.9–10);<sup>167</sup> signs indicating the imminent death of the foetus or the mother (8.11); signs pointing to a dead foetus (8.12);<sup>168</sup> mental or exogenous disorders of the expectant mother may kill the child in her womb (8.13);<sup>169</sup> if the woman in child-bed<sup>170</sup> is dying, but movements are still visible in her abdomen, the physician should open the belly and take out the child (8.14).<sup>171</sup>

Chapter nine is devoted to vidradhi (abscesses).

Its subjects are: the pathogenesis and general appearance of vidradhi; its six types: caused by a single doṣa, all the doṣas together, a trauma (kṣata), and blood (9.4–6),<sup>172</sup> the characteristics of vidradhi caused by vāta, pitta, kapha, and a combination of the doṣas (9.7–11ab); the aetiology, pathogenesis and symptoms of vidradhi caused by a trauma<sup>173</sup> (9.11cd–13ab); the characteristics of vidradhi caused by blood (9.13cd–14ab); vidradhi caused by all the doṣas is incurable (9.14cd);<sup>174</sup> the aetiology and pathogenesis of internal (ābhyantara) vidradhi, which resembles a gulma and has the shape of a termite hill (valmīka) (9.15–17ab); the sites of internal vidradhis; their features, which are like those of the external type; the signs of ripe and unripe vidradhis (9.17cd–19ab);<sup>175</sup> special features dependent on the site involved: anorectal region (guda), bladder (basti), umbilical region (nābhi), lateral parts of the abdomen (kukṣi), groins (vaṅkṣaṇa), kidneys (vṛkka), spleen (plīhan), cardiac region (hṛd), liver

(yalṛt), kloman (9.19cd–22);<sup>176</sup> degrees of amenability to treatment (9.23–25);<sup>177</sup> the special type of vidradhi, caused by blood, and called makkalla;<sup>178</sup> this disorder occurs in women after a miscarriage (apaprajātā)<sup>179</sup> and after a normal delivery when the blood has not come out (9.26–27); suppuration will set in when makkalla does not subside within seven days (9.28ab); the differences between gulma and vidradhi (9.28cd–33); incurable types of vidradhi (9.34ab);<sup>180</sup> inflammatory and suppurating processes in the bone marrow (majjaparipāka) (9.34cd–38).<sup>181</sup>

Chapter ten is devoted to visarpa (erysipelas or cellulitis), nāḍī (a sinus), and stanaroga (diseases of the breasts).

The subjects dealt with are: the pathogenesis and general features of visarpa; the explanation of its name (10.3);<sup>182</sup> the characteristics of visarpa due to vāta (10.4),<sup>183</sup> pitta (10.5),<sup>184</sup> kapha (10.6ab),<sup>185</sup> and all the doṣas collectively (10.6cd);<sup>186</sup> the features of visarpa in someone with a recent sore due to a trauma (kṣatavraṇa) (10.7);<sup>187</sup> degrees of amenability to treatment (10.8);<sup>188</sup> circumstances leading to the development of a nāḍī or gati (10.9–10ab); this disorder is caused by one of the doṣas separately, a combination of two doṣas, concerted action of the three doṣas, or the presence of a foreign body (śālya) (10.10cd); the characteristics of a nāḍī due to vāta, pitta, kapha (10.11–12ab), a combination of two doṣas (10.12cd), concerted action (10.13), and a foreign body (10.14); stanaroga has the same group of causes as gati and is divided into the same number of types (10.15); the openings (dvāra) of the ducts (dhamanī) in the breasts of virgins are closed, which explains that stanarogas do not occur in them; they are open in pregnant women and those who have given birth, which makes them liable to these disorders (10.16–17); the physiology of milk secretion, which is comparable to the production of semen (śukra) in the male (10.18–23ab);<sup>189</sup> the characteristics of breastmilk corrupted by vāta, pitta, kapha, and all the doṣas together (10.23cd–24);<sup>190</sup> the characteristics of normal breastmilk (10.25);<sup>191</sup> stanaroga is brought about by doṣas which reach the breasts of women, lactating or not lactating, and corrupt the blood and the tissues (māṃsa) present there; the disorder is of the same five types and produces the same symptoms as an external abscess (bāhyavidradhi), with this difference that a type caused by blood does not occur (10.26–27).<sup>192</sup>

Chapter eleven is devoted to the disorders called granthi, apacī, arbuda and galagaṇḍa.

The subjects dealt with are: the pathogenesis and general appearance of granthi (11.3);<sup>193</sup> the characteristics of granthi due to vāta, pitta, and kapha (11.4–6);<sup>194</sup> the characteristics of granthi brought about by fatty tissue (medas) (11.7);<sup>195</sup> the aetiology, pathogenesis and appearance of granthi arising from the sirās; the degrees of curability of this disorder (11.8–9); the origin, appearance, symptoms, course, duration, and amenability to treatment of apacī (11.10–12);<sup>196</sup> the origin, appearance and evolution of arbuda;<sup>197</sup> its six types: due to vāta, pitta, kapha, blood, muscular tissue, and fatty tissue; its characteristics are like those of granthi (11.13–15ab);<sup>198</sup> the pathogenesis, appearance, course, etc., of arbuda due to blood (raktārbuda) (11.15cd–17ab) and to muscular tissue (māṃsārbuda) (11.17cd–19); an arbuda developing when another one is already present is called adhyarbuda; two arbudas growing simultaneously or

successively are called dvirarbuda; these conditions are incurable (11.20); suppuration (pāka) does not occur in arbudas, due to their very nature (nisarga): kapha predominates in them, they abound in fatty tissue (medas), and their doṣas are immobile (sthira) and knotted together (grathana) (11.21); the pathogenesis of galagaṇḍa (11.22);<sup>199</sup> characteristics of galagaṇḍa due to vāta, kapha, and fatty tissue (medas) (11.23–27);<sup>200</sup> signs of incurability in galagaṇḍa (11.28);<sup>201</sup> the definition of galagaṇḍa: it is a large or small swelling (śvayathu), resembling a testicle (muṣka), attached to and hanging from the throat (gala) (11.29).

Chapter twelve is devoted to vṛddhi (swellings of the scrotum), upadaṃśa (swellings and sores of the penis), and ślīpada (filariasis).

The subjects dealt with are: the seven types of vṛddhi: due to vāta, pitta, kapha, blood, fatty tissue (medas), urine, and intestine (antra);<sup>202</sup> the types brought about by urine and intestine arise from vāta and differ only in the ground of their production (utpattihetu) (12.3);<sup>203</sup> when any one of the doṣas gets excited in the lower part (of the trunk) and reaches the ducts (dhamanī) of the scrotum, the resulting enlargement is called vṛddhi (12.4);<sup>204</sup> the prodromes (12.5); the characteristics of vṛddhi caused by vāta, pitta, kapha, fatty tissue, and blood;<sup>205</sup> the aetiology and characteristics of the type caused by urine;<sup>206</sup> the aetiology, pathogenesis and characteristics of the type brought about by a part of the intestines<sup>207</sup> (12.6); the aetiology of upadaṃśa, a disorder consisting of swelling (śvayathu) of the penis, with or without a sore (kṣata) (12.7);<sup>208</sup> the five types of upadaṃśa: caused by a single doṣa, concerted action of the doṣas, and blood (12.8);<sup>209</sup> the characteristics of these five types (12.9);<sup>210</sup> the pathogenesis of ślīpada, which consists of a swelling of the legs;<sup>211</sup> it is caused by vāta, pitta or kapha (12.10); the characteristics of the three types (12.11);<sup>212</sup> features making ślīpada unsuitable to treatment (12.12);<sup>213</sup> the predominance of kapha in ślīpada (12.13);<sup>214</sup> ślīpada is prevalent in regions with much stagnant water and a cool climate (12.14); ślīpada occurs not only in the legs but also in the hands; some say that it may affect the ears, eyes, nose and lips (12.15).<sup>215</sup>

Chapter thirteen is devoted to the kṣudrarogas,<sup>216</sup> a group of forty-four diseases, listed at the beginning of the chapter (13.3),<sup>217</sup> and described afterwards.

The kṣudrarogas are: ajagallikā (13.4),<sup>218</sup> yavaprakhyā (13.5),<sup>219</sup> andhālājī (13.6),<sup>220</sup> vivṛtā (13.7),<sup>221</sup> kacchapikā (13.8),<sup>222</sup> valmīka (13.9–10),<sup>223</sup> indravṛddhā (13.11),<sup>224</sup> gardabhikā (13.12ab),<sup>225</sup> panasikā (13.12cd),<sup>226</sup> pāśānagardabha (13.13),<sup>227</sup> jālagardabha (13.14),<sup>228</sup> irivellikā (13.15),<sup>229</sup> kākṣā (13.16),<sup>230</sup> gandhanāmā (13.17),<sup>231</sup> viṣphoṭaka (13.18),<sup>232</sup> agnirohinī (13.19–20),<sup>233</sup> cippa (13.21–22ab),<sup>234</sup> kunakha or kulīna (13.22cd–23ab),<sup>235</sup> anuṣayī (13.23cd–24ab),<sup>236</sup> vidārikā (13.24cd–25ab),<sup>237</sup> śarkarārbuda (13.25cd–28ab),<sup>238</sup> pāmā, vicarcī and rakasā (13.28cd),<sup>239</sup> pādādāri (13.29),<sup>240</sup> kadara (13.30–31),<sup>241</sup> alasa (13.32),<sup>242</sup> indralupta, also called khālitya and rujyā (13.33–34),<sup>243</sup> dāruṇaka (13.35),<sup>244</sup> aruṇṣikā (13.36),<sup>245</sup> palita (13.37),<sup>246</sup> maśūrikā (13.38),<sup>247</sup> mukhadūṣikā (13.39),<sup>248</sup> padininīkaṇṭaka (13.40),<sup>249</sup> jatumaṇi (13.41),<sup>250</sup> maṣaka (13.42),<sup>251</sup> tilakālaka (13.43),<sup>252</sup> nyaccha (13.44),<sup>253</sup> carmakīla (13.45ab),<sup>254</sup> vyaṅga (13.45cd–46),<sup>255</sup> nīlikā (13.47ab),<sup>256</sup> parivartikā



(13.47cd–50ab),<sup>257</sup> avapāṭikā (13.50cd–52ab),<sup>258</sup> niruddhaprakāśa (13.52cd–54),<sup>259</sup> saṃniruddhaguda (13.55–56),<sup>260</sup> ahipūtana (13.57–58),<sup>261</sup> viṣṇacakchū (13.59–60),<sup>262</sup> and gudabhraṃśa (13.61).<sup>263</sup>

Chapter fourteen is devoted to śūkadoṣa,<sup>264</sup> a group of diseases occurring in men with improper sexual practices<sup>265</sup> who want to increase the size of their penis.

Eighteen types of śūkadoṣa are distinguished and described:<sup>266</sup> sarśapikā,<sup>267</sup> aṣṭhīlikā,<sup>268</sup> grathita,<sup>269</sup> kumbhīkā,<sup>270</sup> alajī,<sup>271</sup> mrdita,<sup>272</sup> saṃmūdhapīḍakā,<sup>273</sup> avamantha,<sup>274</sup> puṣkarikā,<sup>275</sup> sparśahāni,<sup>276</sup> uttamā,<sup>277</sup> śataponaka,<sup>278</sup> tvakpāka,<sup>279</sup> śoṇitārbuda, māṃsārbuda, māṃsapāka,<sup>280</sup> vidradhi,<sup>281</sup> and tilakālaka<sup>282</sup> (14.3–17). Incurable are māṃsārbuda, māṃsapāka, vidradhi and tilakālaka (14.18).

Chapter fifteen is devoted to bhagna (fractures and dislocations).<sup>283</sup>

Its subjects are: the various traumas (abhighāta) causing bhagna (15.3); the two groups of bhaṅga (= bhagna): sandhimukta (dislocation of joints)<sup>284</sup> and kāṇḍabhagna (fractures);<sup>285</sup> sandhimukta is of six, kāṇḍabhagna of twelve types (15.4); the six types of dislocation: utpiṣṭa,<sup>286</sup> viśīṣṭa,<sup>287</sup> vivartita,<sup>288</sup> avakṣipta,<sup>289</sup> atikṣipta,<sup>290</sup> and tiryakkṣipta<sup>291</sup> (15.5); the general features of dislocations (15.6);<sup>292</sup> the characteristics of the six types (15.7);<sup>293</sup> the twelve types of fracture: karkaṭaka,<sup>294</sup> aśvakarṇa,<sup>295</sup> cūrṇita,<sup>296</sup> piccita,<sup>297</sup> asthicchallita,<sup>298</sup> kāṇḍabhagna,<sup>299</sup> majjānugata,<sup>300</sup> atipāṭita,<sup>301</sup> vakra,<sup>302</sup> chinna,<sup>303</sup> pāṭita,<sup>304</sup> and sphuṭita<sup>305</sup> (15.8);<sup>306</sup> the general features of fractures (15.9);<sup>307</sup> the characteristics of the twelve types (15.10); features of dislocations and fractures and of patients which lead to difficulties in treatment or incurability (15.11–13); cases which should not be accepted for treatment (15.14–15ab); the influence of the patient's age on the healing process (15.15cd–16ab); the characteristics of fractures in particular types of bones (15.16–17).<sup>308</sup>

Chapter sixteen is devoted to diseases of the mouth, oral cavity and throat (mukharoga).<sup>309</sup>

The subjects dealt with are: the total number of these diseases, namely sixty-five;<sup>310</sup> their seven sites: lips (oṣṭha), roots of the teeth and the gums (dantamūla),<sup>311</sup> teeth (danta), tongue (jihvā), palate (tālu), throat (gala), and the whole of these structures together; there are eight diseases of the lips, fifteen of the roots of the teeth and the gums, eight of the teeth, five of the tongue, nine of the palate, seventeen of the throat, and three affecting the whole of these sites (16.3); diseases of the lips are caused by vāta,<sup>312</sup> pitta,<sup>313</sup> kapha,<sup>314</sup> concerted action of the three doṣas,<sup>315</sup> blood,<sup>316</sup> muscular tissue,<sup>317</sup> fatty tissue,<sup>318</sup> and traumata (abhighāta) (16.4); the characteristics of these diseases (16.5–12);<sup>319</sup> the diseases of the roots of the teeth and the gums<sup>320</sup> are: śītāda,<sup>321</sup> dantapuppūṭaka,<sup>322</sup> dantaveṣṭa(ka),<sup>323</sup> śauṣira,<sup>324</sup> mahāśauṣira,<sup>325</sup> paridara,<sup>326</sup> upakuṣa,<sup>327</sup> (danta)vaidarbha,<sup>328</sup> vardhana,<sup>329</sup> adhimāṃsa,<sup>330</sup> and the five types of nāḍī<sup>331</sup> (16.13); the characteristics of these diseases (16.14–26);<sup>332</sup> the diseases of the teeth:<sup>333</sup> dālana,<sup>334</sup> kṛmidantaka,<sup>335</sup> dantaharṣa,<sup>336</sup> bhañjanaka,<sup>337</sup> dantaśarkarā,<sup>338</sup> kapālikā,<sup>339</sup> śyāvadantaka,<sup>340</sup> and hanumokṣa<sup>341</sup> (16.27); the characteristics of these diseases (16.28–35);<sup>342</sup> the diseases of the tongue: three types of

kaṇṭaka,<sup>343</sup> caused by vāta, pitta and kapha respectively, alāsa,<sup>344</sup> and upajihvikā<sup>345</sup> (16.36); the characteristics of these diseases (16.37–39);<sup>346</sup> the diseases of the palate: kaṇṭhaśuṇḍī or galaśuṇḍikā,<sup>347</sup> tuṇḍikerī,<sup>348</sup> adhruṣa,<sup>349</sup> kacchapa,<sup>350</sup> arbuda,<sup>351</sup> māṃsasaṃghāta,<sup>352</sup> tāluppuṭa,<sup>353</sup> tāluśoṣa,<sup>354</sup> and tālupāka (16.40);<sup>355</sup> the characteristics of these diseases (16.41–45);<sup>356</sup> the diseases of the throat: the five types of rohiṇī,<sup>357</sup> kaṇṭhaśālūka,<sup>358</sup> adhijihva,<sup>359</sup> valaya,<sup>360</sup> balāsa,<sup>361</sup> ekavṛnda,<sup>362</sup> vṛnda,<sup>363</sup> śataghñī,<sup>364</sup> gilāyu,<sup>365</sup> galavidradhi,<sup>366</sup> galaugha,<sup>367</sup> svaraghna,<sup>368</sup> māṃsatāna,<sup>369</sup> and vidārī<sup>370</sup> (16.46); the characteristics of these diseases (16.47–63);<sup>371</sup> the disease affecting all the mentioned structures is called sarvasara;<sup>372</sup> it is of four varieties, caused by vāta, pitta, kapha and blood (16.64); the characteristics of the first three of these varieties (16.65–66ab);<sup>373</sup> the fourth type, caused by blood, is not a distinct entity, but a subtype of that caused by pitta; some call it mukhapāka (16.66cd).<sup>374</sup>

## Chapter 3

### Śārīrasthāna

Chapter one, called sarvabhūtacintāśārīra, is devoted to an exposition of the Sāṃkhya philosophy and its relevance to medicine.<sup>1</sup>

The subjects dealt with are: the avyakta and its characteristics (lakṣaṇa); sattva, rajas and tamas; the eight forms (rūpa) of avyakta;<sup>2</sup> the avyakta is the seat (adhiṣṭhāna) of many kṣetrajñas (1.3); mahat originates from the avyakta, ahaṃkāra from mahat; ahaṃkāra is of three kinds: vaikārika, taijasa and bhūtādi; the vaikārika ahaṃkāra, with the cooperation of the taijasa ahaṃkāra, is the origin of the eleven indriyas: the five buddhīndriyas, the five karmendriyas, and manas; the five tanmātras arise from the bhūtādi ahaṃkāra, with the cooperation of the taijasa ahaṃkāra; the tanmātras and their specific qualities (viśeṣa); the development of the (mahā)bhūtas from the tanmātras; twenty-four tattvas arise in this way (1.4);<sup>3</sup> the objects of the five senses (buddhīndriya) and the actions (viharaṇa) of the karmendriyas (1.5); the eight principles (tattva) collectively called prakṛti consist of avyakta, mahat, ahaṃkāra and the five tanmātras; the remaining sixteen are vikāras (derivatives) (1.6); the deities connected with buddhi, ahaṃkāra, manas, the buddhīndriyas and the karmendriyas (1.7);<sup>4</sup> these twenty-four tattvas are not endowed with consciousness (they are acetana), but the twenty-fifth, the puruṣa, is, when combined with prakṛti and the vikāras, the source of this principle (1.8); the differences between prakṛti and puruṣa (1.9); all the twenty-four tattvas have sattva, rajas and tamas as their constituents; some are of the opinion that this also applies to the puruṣa (1.10); in medical science, however, the far-sighted (prthudarsīnal) regard svabhāva (inherent nature), kāla (time), yadṛcchā (chance), niyati (fate) and pariṇāma (transformation) as prakṛti (1.11);<sup>5</sup> the mahābhūtas (1.12); their importance in medicine (1.13); all the substances (dravya) derive from the bhūtādi; the sense organs and their objects are regarded, in the medical science, as derived from the five mahābhūtas (1.14); the specific relationships between the sense organs and their objects (1.15); the non-omnipresent (asarvagata) karmapuruṣa<sup>6</sup> as the object of the medical science; the kṣetrajñā, its eternal (nitya) nature, etc., can be grasped only by means of inference (1.16); the qualities of the puruṣa (1.17); the characteristics of sāttvika, rājasa and tāmasa persons (1.18);<sup>7</sup> the derivatives of the five mahābhūtas in the human body (1.19);<sup>8</sup> sattva predominates in ākāśa, rajas in vāyu (wind, air), sattva and rajas in agni (fire), sattva and tamas in āpal (water), tamas in pṛthivī (earth) (1.20); the anyo'nyānupraveśa of the mahābhūtas; a substance is called after the mahābhūta predominantly present in it (1.21).

Chapter two, called śukraśoṇitaśuddhiśāstra, is devoted to the purity (śuddhi) of the male and female procreational fluids (śukra and śoṇita) and a number of related issues (conception, the development of the foetus, etc.).

The subjects dealt with are: the enumeration of the characteristics of the kinds of semen (retas) unsuitable for generating offspring (2.3); the description of these conditions:<sup>9</sup> semen corrupted by vāta, pitta or kapha possesses the colour of these doṣas and leads to painful sensations (vedanā) characteristic of them; when corrupted by blood, the semen smells like a decomposing corpse (kuṇapagandhin) and is profuse in quantity; semen corrupted by kapha and vāta shows clots (granthibhūta); corrupted by pitta and kapha, it resembles foul-smelling pus (pūtipūyanibha); corrupted by pitta and vāta, it is small in quantity (kṣīṇa) and shows the features described;<sup>10</sup> semen corrupted by concerted action of the doṣas smells like urine or faeces; curable with difficulty are the disorders in which the semen smells like a decomposing corpse, is clotted, smells like pus, and is small in quantity; the patients whose semen smells like urine or faeces cannot be cured at all (2.4); the disorders of the ārtava<sup>11</sup> are of the same eight types as those of the semen and possess the same characteristics; incurable are the types in which the ārtava (menstrual discharge) smells like a decomposing corpse, is clotted, resembles pus, is small in quantity, and smells like urine or faeces; the remaining types are curable (2.5);<sup>12</sup> the treatment of the disorders of the semen (śukradoṣa) (2.6–11ab);<sup>13</sup> the characteristics of normal semen (2.11cd–12ab);<sup>14</sup> the treatment of the disorders of the ārtava (2.12cd–16); the characteristics of normal ārtava (2.17);<sup>15</sup> the disorder called asṛgdara, characterized by an excessive discharge of menstrual blood (menorrhagia) or bleeding from the uterine tract at irregular times (metrorrhagia) (2.18); the symptoms of asṛgdara (2.19–20ab);<sup>16</sup> asṛgdara should be treated on the same lines as raktapitta (2.20cd–21ab);<sup>17</sup> amenorrhoea and its treatment (2.21cd–22); the already described oligomenorrhoea<sup>18</sup> should be treated like amenorrhoea (2.23); things to be avoided by a menstruating woman; the specific bad effects that infringements on these rules may have on a child conceived during the fertile period; rules regarding sleeping habits and diet during the first three days of the menstrual cycle; coitus should be avoided during these three days, but is permitted on the fourth day (2.25);<sup>19</sup> a woman should see her husband after the bath at the end of her impure period, because the child that might be conceived resembles the person first seen (2.26); rites and various prescriptions regarding behaviour and diet leading to the conception of a male (2.27–20) or female child (2.30);<sup>20</sup> intercourse on the first day of menstruation reduces a man's span of life; a child conceived on that day would die during delivery; a child conceived on the second day would die during the mother's stay in the lying-in room; conceived on the third day, it would have incompletely developed body parts and a short life; conceived on the fourth day, its body will be completely developed and it will have a long life; semen which enters the womb when the blood is still flowing out will not be fruitful; for that reason no intercourse should take place during the first three nights (2.31); the ritual to ensure that a child conceived will be male (2.32);<sup>21</sup> the four requirements for conception, comparable to season, soil, water and seed with regard to the production of crops (2.33–34); the preponderance of one or more of the mahābhūtas determines the

complexion of the child; fire (tejodhātu) is the source of colours; when at the time of conception this (fiery principle) is mainly mixed with water the child will be fair (gaura), when mainly mixed with earth it will be dark (kr̥ṣṇa), when mainly mixed with earth and ākāśa it will be kr̥ṣṇaśyāma, when mainly mixed with water and ākāśa it will be gaurāśyāma;<sup>22</sup> others are of the opinion that the colour of the child's skin depends on the colour of the food taken by the mother; particulars with regard to the fiery principle (tejodhātu) determine the colour of the eyes, the presence of blindness, and abnormalities of the eyes<sup>23</sup> (2.35); the procreational substance (ārtava) of a woman is dislodged during intercourse, like a lump of ghee, melting in contact with the heat of fire (2.36); when the vāta lodged within a bīja<sup>24</sup> divides it into two halves, twins will be born,<sup>25</sup> who are beings deriving from adharma<sup>26</sup> (2.37); abnormalities of sexual behaviour:<sup>27</sup> due to scantiness of the parental bīja an āśekya may be born, who gets an erection (dhvajocchrāya) after swallowing (another man's) sperm; when the female genitals are foul-smelling (pūtiyoni), a saugandhika may be born, who is sexually stimulated by the smell of vagina and penis; a man who first accepts to be the passive partner in anal intercourse and then proceeds to anal penetration of a woman is known as kumbhika; a man who is potent only after looking at the intercourse of another couple is called īrṣyaka; when a man, in a female fashion, has intercourse with his wife (during the menstrual period), a saṇḍhika may be born, who looks and behaves like a woman; when a woman, still menstruating, assumes the male position during intercourse, and a daughter is conceived, she will show male behavioural traits (2.38–43);<sup>28</sup> the āśekya, sugandhin, kumbhika and īrṣyaka do have semen, but the saṇḍha is devoid of it (2.44); the semen-transporting vessels (sirā) in these types of persons get engorged by unnatural practices only, thus leading to an erection (2.45); the qualities of a child are determined by the diet, behaviour and acts of the parents at the time of intercourse (2.46); the intercourse of two women, who both discharge their śukra,<sup>29</sup> leads to the conception of a child without bones (2.47); when a woman, after the bath at the end of her impure period, experiences intercourse in a dream, vāta will dislodge the ārtava and an embryo will be formed; the signs of pregnancy will develop from month to month, but the paternal elements will be entirely absent in this child, which is called kalala (2.48–49);<sup>30</sup> the birth of deformed children, looking like a serpent, scorpion or gourd, should be regarded as the result of bad acts (2.50); when a woman's longings during pregnancy are not respected and vāta becomes excited, the child that will be born may be humpbacked (kubja), have a deformed arm (kuṇi), be lame (paṅgu) or dumb (mūka), or have a nasal voice (minmīṇa) (2.51); due to the small amount of impure matter and the negligible activity of vāta in its pakvāśaya, the foetus in the womb does not discharge flatus, urine and faeces (2.53); the foetus does not cry because, its mouth being covered by the foetal membranes (jarāyu)<sup>31</sup> and its throat being full of kapha, the pathway of vāta is blocked (2.54); the inhalations (niḥśvāsa), exhalations (ucchvāsa), movements (saṅkṣobha) and sleep of the foetus are intimately connected with the same functions of the mother (2.55); the structure (saṁniveśa) of bodily beings, the eruption and falling out of the teeth, and the absence of hairs on the palms of the hands and the soles of the feet are due to svabhāva (inherent nature) (2.56); those who were constantly engaged in study of the

śāstras in their previous lives, become men with a predominance of sattva, who can remember their former existences (jātimara)<sup>32</sup> (2.57); the kind of actions performed in a previous life reappears on rebirth; this also applies to virtues practised in an earlier existence (2.58).

Chapter three, called garbhāvākṛāntiśāṁīra,<sup>33</sup> is devoted to conception, the development of the child within the womb, and some related topics.<sup>34</sup>

The subjects are: the saumya character of śukra (semen), the āgneya (fiery) character of ārtava (the female procreational fluid); the reasons for positing that the other mahābhūtas are present in them too, although in small amounts (3.3);<sup>35</sup> the description of conception: tejas (the fiery principle), activated by vāta, makes the male discharge his semen during sexual intercourse into the female genitals; semen and ārtava unite and, through (this) conjunction of agni and soma, (the product) reaches the uterus (garbhāśaya); the kṣetrajñā, endowed with many names,<sup>36</sup> enters, impelled by vāta, and accompanied by the bhūtātman, at the same moment (anvakṣam), the same organ and remains settled there, together with sattva, rajas, tamas and all their derivatives (3.4);<sup>37</sup> predominance of śukra leads to the formation of a male, predominance of ārtava to the formation of a female child; if both are present in equal amounts, the child will be a napuṃsaka (neither male nor female) (3.5);<sup>38</sup> the period suitable to impregnation (ṛtu) consists of twelve days after (the cessation of) the menses; some are of the opinion that the same rule holds good when the woman has not menstruated visibly (adrṣṭārtava) (3.6); the characteristics of a woman in the fertile part of the menstrual cycle (ṛtumatī) (3.7–8); on expiry of the fertile period (ṛtu), the uterus (yoni) contracts, in the same way as the flower of a water-lily at the end of the day (3.9); the ārtava, which comes from two vessels (dhamanī), accumulates in the course of a month and is led to the opening of the female genitals (yonimukha) by vāta; its normal colour is slightly dark (kṛṣṇa) and different from (that of normal blood)<sup>39</sup> (3.10);<sup>40</sup> menstruation starts at the age of twelve years and stops at the age of fifty (3.11); intercourse on even days leads to the conception of a male, on odd days to the conception of a female child (3.12); signs indicating that a woman has recently conceived (3.13);<sup>41</sup> signs indicating pregnancy (3.14–15);<sup>42</sup> things to be avoided by a pregnant woman (3.16);<sup>43</sup> disorders of particular parts of the mother's body, caused by the doṣas, manifest themselves in the same parts of the unborn child (3.17); in the first month of pregnancy the embryo becomes what is called a kalala;<sup>44</sup> in the second month, due to the action of the mahābhūtas, it develops into a solid mass, which is globular (piṇḍa), elongated (peṣṭi) or like an arbuda, which are characteristics pointing to the formation of a male, female or napuṃsaka child;<sup>45</sup> in the third month the arms, legs and head begin to appear, and all the major and minor divisions of the body are already present in a subtle form;<sup>46</sup> in the fourth month the major and minor body parts become visible, and the cetanā-dhātu (the principle of consciousness) begins to manifest itself because the heart of the foetus has been formed; the heart is the seat of cetanā; for this reason the foetus begins to long after the objects of the senses; the mother, now possessing two hearts, is called dauḥṛdinī from this time onwards;<sup>47</sup> the defects of children, resulting from neglect of the pregnant woman's longings; the importance of their satisfaction (3.18–

21);<sup>48</sup> the effects on the child of particular longings (3.22–28); the pregnancy longings are determined by fate (daiva), just like the actions in a former existence determine those during the present life (3.29); in the fifth month the mind (manas) of the foetus awakens more fully, in the sixth month the buddhi; in the seventh month the major and minor body parts go on to develop; in the eighth month the ojas becomes unstable; a child born in this month will not survive, because of the deficiency of its ojas (niro-jastva), and also because it belongs to Nirṛti,<sup>49</sup> to whom propitiatory offerings (bali) of māṃśaudana<sup>50</sup> should be given in this period;<sup>51</sup> delivery takes place in the ninth, tenth, eleventh or twelfth month; if otherwise, it should be regarded as an abnormality (3.30);<sup>52</sup> the umbilical cord (garbhanābhināḍī) is attached to the rasa-transporting vessel (nāḍī) of the mother, which carries the vīrya of the āhārarasa<sup>53</sup> of the mother to the foetus, which grows thanks to the upasneha (nutrients) this rasa contains; this upasneha, carried by the rasa-transporting vessels (dhamanī), which run through the wholebody, supports the life of the unborn child (3.31);<sup>54</sup> the opinions of a number of authorities on the question which part of the embryo develops first; this part is the head according to Śaunaka, the heart according to Kṛtavīrya, the umbilical region according to Pārāśarya, hands and feet according to Mārkaṇḍeya, the trunk according to Subhūti Gautama; the final verdict came from Dhanvantari who, declaring all these opinions to be false, expounded that all major and minor parts of the body develop simultaneously, although they cannot be distinguished clearly in the early stages (3.32);<sup>55</sup> the constituents of the foetus derive from father, mother, rasa, ātman, and sātmya; of paternal origin are all the firm (sthira) parts: hair of the head (keśa), face (śmaśru) and body (loman), bones, nails and teeth, sirās, snāyus and dhamanīs, semen (retas), etc.; derived from the mother are all the soft (mrdu) parts: muscles, blood, fat (medas), bone marrow, heart, umbilical region, liver, spleen, intestines, ano-rectal region, etc.; derived from rasa are: bodily solidity (upacaya), strength (bala), complexion (varṇa), maintenance (sthiti) and decay (hāni); derived from the ātman are: the senses, spiritual and worldly knowledge (jñāna and vijñāna), span of life (āyus), happiness (sukha), grief (duḥkha), etc.; the constituents derived from sattva will be discussed in one of the subsequent chapters; derived from sātmya are: vīrya, health, strength (bala), complexion (varṇa) and intelligence (medhā) (3.33);<sup>56</sup> signs indicating that the child carried is male, female, or a napuṃsaka; the sign indicating that a twin-birth is to be expected (3.34);<sup>57</sup> the formation of the major and minor body parts is due to svabhāva, but the good or bad features of these parts are due to (the balance of) dharma and adharma (in previous lives) (3.36).

Chapter four, called garbhavyākaraṇa, is devoted to a more detailed exposition on the foetus.

The subjects dealt with are: the prāṇas, which consist of agni, soma,<sup>58</sup> vāyu, sattva, rajas, tamas, the five sense organs, and the bhūtātman (4.3);<sup>59</sup> the formation of the seven layers of the skin, called avabhāsinī, lohita, śvetā, tāmrā, vedinī, rohinī, and māṃśadharā; the thickness of each of these layers; the disorders located in them;<sup>60</sup> the measurements given are those found in fleshy parts, not in parts with a thin skin like the forehead, etc. (4.4);<sup>61</sup> the kalās, which are seven in number; a kalā is the tissue

forming a boundary between dhātu and āśraya (receptacle) (4.5); a dhātu becomes visible on cutting through fleshy parts; the structures called kalā are covered by snāyus, encased in a membrane (jarāyu), and surrounded by phlegm (śleṣman) (4.6–7);<sup>62</sup> descriptions of the seven kalās, called successively māṃsadharā,<sup>63</sup> raktadharā,<sup>64</sup> medodharā,<sup>65</sup> śleṣmadharā,<sup>66</sup> purīṣadharā, pittadharā, and śukradharā (4.8–20);<sup>67</sup> semen is present throughout the whole body, just as ghee in milk and juice in the sugarcane (4.21); the place where the śukra enters the urethra; it flows out through the urethra (4.22); the process of ejaculation (4.23); pregnant women do not menstruate because the channels (srotas) transporting ārtava are obstructed by the foetus; part of the ārtava is the material out of which the placenta (aparā) is formed, the remaining part makes the breasts swell (4.24); liver (yakṛt) and spleen (plīhan) of the foetus are formed from blood, the phupphusa<sup>68</sup> from the foam (phena) of blood, the uṇḍuka<sup>69</sup> from the waste products (kiṭṭa) of blood (4.25); the intestines, ano-rectal region and bladder are formed from the pure parts (prasāda) of blood and kapha, acted upon by pitta and vāta (4.26–27ab); the tongue is formed from the pure parts of kapha, blood and muscular tissue (4.27cd–28ab); the channels (srotas) arise from the combined action of vāta and ūṣman<sup>70</sup> (4.28cd); the peśīs (muscles) arise in the same way; vāta and pitta are also the agents transforming (part of) the muscles, in combination with the sneha of medas, into sirās and snāyus; mild (mṛdu) heating (pāka) leads to the formation of sirās, strong (khara) heating to the formation of snāyus (4.29–30ab); repeated action of vāta leads to the formation of āśayas (receptacles) (4.30cd); the kidneys (vrkka) arise from the pure parts of blood and fatty tissue (medas), the testicles (vrṣaṇa) from the pure parts of muscular tissue (māṃsa), blood, kapha and fatty tissue (medas), the heart from the pure parts of blood and kapha; the heart is the basis (āśraya) of the prāṇa-transporting dhāmanīs; below the heart, on the left side, are spleen and phupphusa<sup>71</sup> located, on the right side liver and kloman; the heart is in particular the seat of consciousness (cetanā), which explains that all living beings sleep when it is covered by tamas (4.31); the heart resembles an inverted water-lily (puṇḍarīka);<sup>72</sup> it is open when one is awake and closed during sleep (4.32); sleep in general and types of sleep (4.33–35);<sup>73</sup> the origin of dreams (4.36); a niind (bhūtātman), although awake, may be called sleeping when tamas has increased in it and affected the senses (4.37); rules concerning sleeping and waking, in particular day sleeping (divāsvapna) (4.38–41);<sup>74</sup> the aetiology of insomnia (nidrānāśa) (4.42);<sup>75</sup> the treatment of insomnia (4.43–46);<sup>76</sup> the treatment of excessive sleep (nidrātiyoga) (4.47);<sup>77</sup> indications for waking at night and sleeping by day (4.48);<sup>78</sup> definitions of tandrā (drowsiness),<sup>79</sup> jṛmbha (yawning), klama (a sense of tiredness without physical exertion),<sup>80</sup> ālasya (laziness),<sup>81</sup> utkleśa (nausea accompanied by salivation),<sup>82</sup> glāni (languor),<sup>83</sup> and gaurava (a sense of heaviness) (4.49–55);<sup>84</sup> mūrchā (fainting) arises from pitta and tamas, bhrama (vertigo) from rajas, pitta and vāta, tandrā from tamas, vāta and kapha, sleep from kapha and tamas (4.56); the foetus grows thanks to the rasa (of the mother) and the blowing (ādhmāna) of vāta (4.57); traditionally, fire (jyotis) is firmly established in the umbilical region; the (foetal) body grows through the fanning (of this fire) by vāta; vāta, with the assistance of ūṣman (= pitta), opens the channels (srotas), running in various directions; the pupil (dṛṣṭi) and the pores of



the hairs (romakūpa) never increase in size and number according to Dhanvantari; the nails and the hairs of the head keep growing even if the body decays, which is due to svabhāva, acting as prakṛti (4.58–61); the seven constitutions (prakṛti): (dominated) by one of the doṣas, two doṣas or all the doṣas together (4.62); the doṣa prevailing at the time of union of semen (śukra) and female procreational fluid (śoṇita) determines the constitution (4.63); the physical and mental characteristics of persons with a constitution dominated by vāta (4.64–67), pitta (4.68–71), kapha (4.72–76),<sup>85</sup> or a mixture of the doṣas (4.77);<sup>86</sup> changes with regard to one's constitution do not occur naturally (svabhāvena) and point to the approach of death (4.78);<sup>87</sup> just as an insect or other small animal (kīṭa), born in an environment full of poisonous substances, does not suffer any harm, the constitution is never a cause of suffering (4.79); the five constitutions in which one of the mahābhūtas predominates, as acknowledged by some authorities;<sup>88</sup> those in which vāyu, agni (fire) and jala (water) predominate are the same as those dominated by vāta, pitta and kapha; the constitutions with a predominance of earth (the pāṛthiva constitution) and ākāśa (the nābhasa constitution) possess their own distinctive characteristics (4.80);<sup>89</sup> the mental characteristics of persons with a preponderance of sattva, rajas or tamas;<sup>90</sup> the seven sāttvika types described are: brahma-, māhendra-,<sup>91</sup> vāruṇa-, kaubera-, gāndharva-, yāmya-, and ṛṣisattva<sup>92</sup> or -kāya; the six tāmāsa types are: āsura-, sarpa-, śākuna-, rākṣasa-, paśāca-, and pretasattva or -kāya; the three tāmāsa types are: pāśava-, matsya-, and vānaspatyasattva or -kāya (4.81–98).

Chapter five, called śārīrasaṃkhyāvyākaraṇa, gives an exposition on human anatomy and the numbers of the various structures present in the body.<sup>93</sup>

The product of the union of śukra and śoṇita, coalesced with ātman, prakṛti and the vikāras (evolved from prakṛti), and staying in the uterus, is called garbha (embryo); this garbha, stably lodged (avasthita) there thanks to its cetanā, is subject to the dividing action of vāta, maturational action of fire (tejas), moistening action of water, and the consolidating action of earth, while ākāśa makes it grow; after the differentiation of various body parts, such as hands, feet, tongue, nose, ears, buttocks, etc., it is called śārīra (body); this body has six main parts (aṅga): the four extremities (śākhā), the trunk (madhya), and the head (5.3).<sup>94</sup>

The minor parts of the body (pratyaṅga) are enumerated; single parts are: head,<sup>95</sup> abdomen, back, umbilical region, forehead, nose, chin, urinary bladder, and neck; paired parts are: ears, eyes, eyebrows, temples, shoulders, cheeks, axillae (kakṣa), breasts, testicles, lateral parts of the chest (pāṛśva), buttocks (sphic), knees, elbows (kūpara), arms, and legs; the fingers and toes are twenty in number; the channels (srotas) will be described later (5.4).<sup>96</sup>

Components of the body are: the layers of the skin, kalās, dhātus, impurities (mala), doṣas, liver and spleen, phupphusa, uṇḍuka, heart, receptacles (āśaya), intestines, kidneys, channels (srotas), kaṇḍarās, jālas, kūrcas, rajjus, sevanīs, saṃghātas, sīmantas, bones, junctures (sandhi), snāyus, peśīs, marmans, sirās, dhamanīs, and channels (srotas) of the yogavaha type<sup>97</sup> (5.5).

The numbers of these components: seven layers of the skin, seven kalās, seven re-

ceptacles, seven dhātus, seven hundred sirās, five hundred peṣṭis, nine hundred snāyus, three hundred bones, two hundred and ten junctures, one hundred and seven marmanas, twenty-four dhamanīs, three doṣas, three impurities, nine channels, (sixteen kaṇḍarās, sixteen jālas, six kūrcas, four rajjus, seven sevanīs, fourteen samghātas, fourteen sīmantas, twenty-two channels of the yogavaha type, and two kinds of intestine) (5.6).<sup>98</sup>

Structures already described are the layers of the skin, kalās, dhātus, impurities, doṣas, liver and spleen, phupphusa, uṇḍuka, heart, and kidneys (5.7).<sup>99</sup>

The receptacles are: the receptacles of vāta, pitta, kapha and blood, the āmāśaya, pakvāśaya, and mūtrāśaya (the urinary bladder); females possess an eighth receptacle, the uterus (garbhāśaya) (5.8). The length of the intestines is three and a half vyāma<sup>100</sup> in males; they are half a vyāma shorter in females (5.9). The nine channels (srotas) with an opening to the exterior (bahirmukha)<sup>101</sup> are: the ears, eyes, mouth, nostrils, anus (guda) and urethra (meḍhra); three additional channels are present in females: those in the breasts and the one transporting the (menstrual) blood (5.10). Out of the sixteen kaṇḍarās four are found in the legs; the same number is present in the arms, neck and back; the nails are the terminal offshoots (agrapararoḥa) of the kaṇḍarās of hands and feet; the penis (meḍhra) is the terminal part of the kaṇḍarās of the neck, which are connected with the heart and run downwards; the buttocks (bimba) form the terminal part of those downwards going kaṇḍarās which connect back and pelvic region (śroṇi); the upwards going off-shoots of the four groups of four kaṇḍarās are situated in the vaulted parts (bimba)<sup>102</sup> of the head, thighs, chest (vakṣas), shoulder regions (aṃsapīṇḍaka), etc. (5.11). Muscular tissue, sirās, snāyus and bones have four jālas (network-like structures)<sup>103</sup> each; these are situated in the regions of the wrists (maṇibandha) and ankles (gulpha); their component parts are connected with each other and interpenetrate to such an extent that numerous holes are formed (parasparagavākṣita); the body abounds in these structures with large numbers of perforations (5.12). There are six kūrcas (brush-like structures): two in the hands, two in the feet, one in the neck, and one in the penis (5.13).<sup>104</sup> There are four large rajjus (cords) of muscular tissue; they are situated on both sides of the vertebral column (prsthavaiṃśa),<sup>105</sup> two of them superficially, two of them more deeply; they serve to bind together the muscles (peṣṭi) (15.14).<sup>106</sup> The sevanīs are seven in number;<sup>107</sup> five of them are present in the skull,<sup>108</sup> one is found on the tongue and one on the penis;<sup>109</sup> one should avoid these sevanīs during surgical interventions (5.15). The asthisamghātas (groups of bones) are fourteen in number;<sup>110</sup> three of these are found in ankle, knee and groin (vaṅkṣaṇa) of each leg; three are present in the corresponding parts of each arm; one is found in the trika<sup>111</sup> and one in the head (5.16); the sīmantas are fourteen in number and found at the same places as the asthisamghātas, being connected with them; some are of the opinion that the sīmantas are eighteen in number<sup>112</sup> (5.17).

The bones are three hundred and sixty in number according to those who follow the (āyur)veda,<sup>113</sup> but the recognized number is three hundred in surgical treatises (śalyatantra).<sup>114</sup> One hundred and twenty out of these are found in the extremities (śākhā), one hundred and seventeen in the pelvic region (śroṇi), lateral parts of the thorax (pārśva), back and chest, and sixty-three above the neck (5.18).<sup>115</sup>

Each toe has three bones, which makes a total of fifteen in each foot; ten bones are present in the sole, tarsal region (kūrca) and ankle region (gulpha); the heel region (pārṣṇi) possesses one bone; the lower leg (jaṅghā) has two bones; the knee and thigh have one bone each; one lower extremity (sakthi) has therefore thirty bones; the same number is present in the other lower and in the two upper extremities.

The pelvic region (śroṇi) has five bones, four of which are found in the anal region (guda), pubic region (bhaga) and gluteal region (nitamba), while one is present in the sacral region (trika). Thirty-six bones are found in each side of the chest (pārśva); the back possesses thirty and the chest eight bones; the scapulae (aṃsaphalaka) are two in number.

The neck has nine and the trachea (kaṇṭhanāḍī) four bones; the jaws (hanu) have two bones. The teeth are thirty-two in number. The nose has three bones; the palate (tālu) has one bone; each of the cheeks (gaṇḍa), ears and temples has one bone; the skull possesses six bones (5.19).

Bones are of five types: flat bones (kapāla), the type called rucaka, cartilages (taruṇa), ring-like bones (valaya), and tubular ones (nalaka).<sup>116</sup>

Flat bones are found in the knee, pelvic region (nitamba), shoulder region (aṃsa), cheek, palate, temple, and head; the teeth are of the rucaka type; cartilages are found in nose, ear, throat (grīvā), and the eye socket (akṣikoṣa); ring-like bones are found in the lateral parts of the chest, the back, and the front part of the chest (uras); the remaining bones are of the tubular type (5.20).

The importance of the skeleton is emphasized in a few verses (5.21–23).

Joints and other junctures (sandhi) are of two types: movable (ceṣṭāvant) and immovable (sthira); movable sandhis are found in the extremities, jaws and pelvic region (kaṭi); all the other ones are immovable (5.24–25).<sup>117</sup>

The joints and other junctures are two hundred and ten in number;<sup>118</sup> out of these, sixty-eight are found in the extremities, fifty-nine in the trunk, and eighty-three in the region above the neck.

The toes have three sandhis, apart from the great toe, which has two;<sup>119</sup> this makes a total of fourteen. Knee, ankle and groin have one sandhi each, which makes a total of seventeen for one lower extremity. The same number is found in the other lower and the two upper extremities. Three sandhis are present in the pelvis and twenty-four in the vertebral column; the same number is present in the lateral parts of the chest; the front part of the chest has a number of eight. Eight sandhis are found in the neck (grīvā) and three in the throat (kaṇṭha).

Eighteen sandhis are present in the nāḍīs connected with heart and kloman.<sup>120</sup> The sandhis of the roots of the teeth are equal in number to the teeth. One sandhi is found in the kākāḷaka<sup>121</sup> and the nose, two are present in the eyelids, one is found in each cheek, ear and temple; the sandhis of the jaws are two in number; the same number of sandhis is present above the eyebrows and temples; five sandhis are found in the bones of the skull, and one in the (part of the head called) mūrdhan<sup>122</sup> (5.26).

Sandhis are of eight types:<sup>123</sup> kora,<sup>124</sup> ulūkhala,<sup>125</sup> sāmudga,<sup>126</sup> pratara,<sup>127</sup> tunna-sevani,<sup>128</sup> vāyasatuṇḍa,<sup>129</sup> maṇḍala,<sup>130</sup> and śaṅkhāvarta.<sup>131</sup>

Sandhis of the kora type are present in fingers and toes, wrists (maṇibandha), an-

kles, knees, and elbows (kūrpara); the ulūkhala type is found in the axillae (kaksā), groins (vañkṣaṇa) and teeth, the sāmudga type in the aṃsaparīṭha,<sup>132</sup> ano-rectal region, pubic region (bhaga) and gluteal region (nitamba), the prātara type in the neck and vertebral column, the tunnasevanī type in the region of the flat bones of cranium and pelvis (kaṭī), the vāyasatunḍa type on each side of the jaw, the maṇḍala type in the nāḍīs of throat, heart, eyes and kloman, the śaṅkhāvarta type in the ears and the śṛṅgāṭakas<sup>133</sup> (5.27). These are the sandhis between bony structures.

The sandhis of muscles (peśī), snāyus and sirās are innumerable (5.28).

The snāyus<sup>134</sup> are nine hundred in number.<sup>135</sup> Six hundred is their number in the extremities, two hundred and thirty in the viscera (koṣṭha), and seventy in the region of the neck and upwards of it. Each toe has six snāyus, which makes a total of thirty in one foot; the same number is found in the sole, kūrca and ankle, as well as in the lower leg; the knee has ten, the thigh forty, and the groin ten of them; the total number is one hundred and fifty in one lower extremity; the same applies to the other lower extremity and the two arms. Sixty snāyus are present in the pelvic region (kaṭī), eighty in the back, sixty in the lateral parts of the chest, thirty in the front part of the chest. Thirty-six snāyus has the neck, while the head possesses a number of thirty-four of them (5.29).

Snāyus are of four types: pratānavant (branched), vṛtta (round), pṛthu (flat), and suśira (provided with holes).<sup>136</sup> The branched ones are found in the extremities and all the sandhis; the round ones are called kaṇḍarā; snāyus with holes are present in ā-māśaya, pakvāśaya and bladder; the flat ones occur in the lateral and front parts of the chest, the back and the head (5.30–32).

The sandhis, fastened with many snāyus, sustain the human frame, as a boat, made of timber and fastened by many bindings, can bear the weight of a large number of people (5.33–34). Injuries to the snāyus are more serious than those affecting bones, muscles, sirās and sandhis (5.35). A physician with a thorough knowledge of the superficial and deep snāyus is able to extract successfully a deeply lodged foreign body (5.36).

The muscles (peśī) are five hundred in number.<sup>137</sup> Four hundred are found in the extremities, sixty-six in the trunk (koṣṭha), thirty-four in the neck and upwards of it. Each toe has three muscles, which makes a total of fifteen for all the toes; the anterior part of the foot (prapada)<sup>138</sup> and the tarsal region (kūrca) have ten muscles each; the same number is present in the ankle region (gulpha) and sole; between the ankle and the knee are twenty muscles; the knee region has five, the thigh twenty and the region of the groin ten muscles; thus one whole leg (sakthi) has a total of one hundred muscles. The other leg and the two arms possess an identical number. The anal region (pāyū) has three muscles, the penis one, the sevanī (raphe) one, the scrotum two, each buttock (sphic) five, the head of the bladder (bastiśiras) two, the abdomen five, the umbilical region one muscle(s); two sets of five long muscles are present in the region of the back; six muscles are present in the two sides of the chest (pārśva), ten in its front part (vakṣas), seven in the two regions of the clavicles (akṣaka) and shoulders (aṃsa), two in heart and āmāśaya, six in liver, spleen and unḍuka. The neck has four muscles, the jaws have a number of eight; kākala and throat (gala) have one muscle each; the palate has

two muscles; one muscle is present in the tongue; the lips, nose and eyes possess two muscles; the cheeks have four and the ears two muscles; the forehead has four muscles; the head possesses one muscle.<sup>139</sup> A total number of five hundred muscles is reached in this way (5.37).

The sirās, snāyus, bones, parvans and sandhis<sup>140</sup> derive their strength from the muscles which cover them (5.38).

Women possess twenty additional muscles:<sup>141</sup> each breast has five muscles, which develop during puberty; four muscles are found in the vagina and external genitals (apatyapatha); two spreading ones inside and two circular (vr̥tta) ones outside, at the opening;<sup>142</sup> three muscles are situated at the garbhacchidra<sup>143</sup> and three other ones carry śukra and ārtava.<sup>144</sup> The uterus (garbhāśayā) lies between pittāśaya and pakvāśaya (5.39).

The various characteristics of muscles are enumerated, such as largeness, smallness, thickness, thinness, etc. (5.40).

The muscles which have been mentioned as present in the penis and scrotum of males are found in the interior of the female body, where they cover the uterus (phala) (5.41).<sup>145</sup>

The marmans, sirās, dhamanīs and srotases will be described elsewhere (5.42).

The female genital tract (yoni) resembles the conch-shell called śaṅkhanābhi and possesses three folds (āvarta); the foetus is lodged in the third fold, called garbhāśayā,<sup>146</sup> which has the form of the mouth part of a rohita fish<sup>147</sup> (5.43–44).<sup>148</sup> The foetus lies doubled up (ābhugna) in the uterus (garbhāśaya), with its head pointed downwards;<sup>149</sup> due to svabhāva,<sup>150</sup> it moves towards the birth-channel (yoni), head first, at the time of delivery (5.45).

The description of the whole body, given in this chapter, is a characteristic element of the surgical science, not found in the other divisions (of āyurveda) (5.46).

A surgeon (śalyahartar), who wants to acquire certain (niḥsaṃśaya) anatomical knowledge, should, with that aim in mind, thoroughly examine a dead body, after cleansing it, for increase of knowledge arises from the combination of perception (pratyakṣa) and study of the science (5.47–48). For this purpose, a corpse should be selected which is intact, originating from a person who has not died from poison, has not suffered from a disease for a long time, and has not lived until a very old age.<sup>151</sup> This corpse, with the intestines and their contents removed, should be wrapped in coverings of muñja grass, bark, kuśa grass, śaṇa (hemp), or any other suitable material, and placed in a running stream, kept within a cage (pañjara), at a place where it is not easily noticed; it should be left there in order to decompose; then, after seven days, one should take it out for examination, very gradually scraping away all the tissues, beginning with the skin, and, subsequently, the major and minor external and internal parts of the body which have been mentioned; the scraping away should be carried out by means of a brush (kūrca), made of uśīra grass, animal hair (bāla), veṇu (bamboo), balbaja grass, or any other suitable material (5.49).<sup>152</sup>

The vibhu (ātman), being extremely subtle, cannot be perceived with (normal) eyes, but only by means of (the sight acquired through) spiritual knowledge (jñāna) and penance (tapas) (5.50).

An expert is one who has acquired practical and theoretical knowledge of the body; practice should be started after clearing away all doubts by seeing and hearing (5.51).

Chapter six, called *pratyekamarmanirdeśa*, is devoted to the vital and vulnerable areas of the body called *marman*.<sup>153</sup>

The total number of *marmans* is one hundred and seven.<sup>154</sup> Five groups are distinguished: *marmans* located in muscular tissue, *sirās*, *snāyus*, bones, and junctures (*sandhi*). Other types of *marman* do not exist (6.3).<sup>155</sup> Eleven *marmans* are found in the muscular tissue, forty-one in the *sirās*, twenty-seven in the *snāyus*, eight in the bones, and twenty in the junctures, which makes a total of one hundred and seven (6.4).

Eleven *marmans* are present in each leg (*sakthi*) and arm;<sup>156</sup> twelve are present in abdomen and chest, fourteen in the back, and thirty-seven in the neck and the region above the neck (6.5).

The *marmans* in the leg are: *kṣipra*,<sup>157</sup> *talahrdaya*,<sup>158</sup> *kūrca*,<sup>159</sup> *kūrcaśīras*,<sup>160</sup> *gulpha*,<sup>161</sup> *indrabasti*,<sup>162</sup> *jānu*,<sup>163</sup> *āṇī*,<sup>164</sup> *urvī*,<sup>165</sup> *lohitākṣa*,<sup>166</sup> and *viṭapa*;<sup>167</sup> the *marmans* in abdomen and chest are: *guda*,<sup>168</sup> *basti*,<sup>169</sup> *nābhi*,<sup>170</sup> *hrdaya*,<sup>171</sup> and the following paired ones: *stanamūla*,<sup>172</sup> *stanarohita*,<sup>173</sup> *apalāpa*,<sup>174</sup> and *apastambha*;<sup>175</sup> the *marmans* in the back are: *kaṭīkataruṇa*,<sup>176</sup> *kukundara*,<sup>177</sup> *nitamba*,<sup>178</sup> *pārśvasandhi*,<sup>179</sup> *bṛhatī*,<sup>180</sup> *aṃsaphalaka*,<sup>181</sup> and *aṃsa*,<sup>182</sup> all of which are present in pairs; the *marmans* in the arms are: *kṣipra*,<sup>183</sup> *talahrdaya*,<sup>184</sup> *kūrca*,<sup>185</sup> *kūrcaśīras*,<sup>186</sup> *maṇibandha*,<sup>187</sup> *indrabasti*,<sup>188</sup> *kūrpara*,<sup>189</sup> *āṇī*,<sup>190</sup> *urvī*,<sup>191</sup> *lohitākṣa*,<sup>192</sup> and *kakṣadhara*,<sup>193</sup> the *marmans* in the region above the clavicles (*jātru*) are: four *dhamanī*,<sup>194</sup> eight *mātrkā*,<sup>195</sup> two *krkātīkās*,<sup>196</sup> two *vidhuras*,<sup>197</sup> two *phaṇas*,<sup>198</sup> two *apāṅgas*,<sup>199</sup> two *āvartas*,<sup>200</sup> two *utkṣepas*,<sup>201</sup> two *śaṅkhas*,<sup>202</sup> one *sthananī*,<sup>203</sup> five *sīmantas*,<sup>204</sup> four *śṛṅgātakas*,<sup>205</sup> and one *adhipatī*<sup>206</sup> (6.6).

*Talahrdaya*, *indrabasti*, *stanarohita* and *guda* are *marmans* of the muscular tissue; *nīladhamanī*, *mātrkā*, *śṛṅgātaka*, *apāṅga*, *sthananī*, *phaṇa*, *stanamūla*, *apalāpa*, *apastambha*, *hrdaya*, *nābhi*, *pārśvasandhi*, *bṛhatī*, *lohitākṣa*, and *urvī* are *marmans* of the *sirās*; *āṇī*, *viṭapa*, *kakṣadhara*, *kūrca*, *kūrcaśīras*, *basti*, *kṣipra*, *aṃsa*, *vidhura*, and *utkṣepa* are *marmans* of the *snāyus*; *kaṭīkataruṇa*, *nitamba*, *aṃsaphalaka* and *śaṅkha* are *marmans* of the bones; *jānu*, *kūrpara*, *sīmantas*, *adhipatī*, *gulpha*, *maṇibandha*, *kukundara*, *āvarta*, and *krkātīkās* are *marmans* of the *sandhis* (6.7).

These *marmans* are classified into five groups: instantly fatal (*sadyahprāṇahara*), fatal after a lapse of time (*kālāntaraprāṇahara*), fatal on extraction of a śālya (*viśalyahara*), disabling (*vaikalyakara*), and painful (*rujākara*); the numbers of these five groups are: nineteen, thirty-three, three, forty-four, and eight (6.8).

To the first group belong *śṛṅgātaka*, *adhipatī*, *śaṅkha*, *kaṇṭhasirā*,<sup>207</sup> *guda*, *hrdaya*, *basti*, and *nābhi*; to the second group belong the *marmans* of the chest, *sīmantas*, *tala*(*hrdaya*), *kṣipra*, *indrabasti*, *kaṭīkataruṇa*, *pārśvasandhi*, *bṛhatī*, and *nitamba*; to the third group belong the two *utkṣepas* and the *sthananī*; to the fourth group belong *lohitākṣa*, *āṇī*, *jānu*, *urvī*, *kūrca*, *viṭapa*, *kūrpara*, *kukundara*, *kakṣadhara*, *vidhura*, *krkātīkās*, *aṃsa*, *aṃsaphalaka*, *apāṅga*, *nīlā*,<sup>208</sup> *manyā*,<sup>209</sup> *phaṇa*, and *āvarta*; to the fifth group belong *gulpha*, *maṇibandha*, and *kūrcaśīras*. Injury at the *kṣipras* is either immediately fatal or after some time (6.9–14).

Marmans are meetingplaces (saṃnipāta) of muscular tissue, sirās, snāyus, bones and sandhis; due to their inherent nature (svabhāva), they are, in particular, seats of the prāṇas, which explains the features which arise when they are injured (6.15).

The sadyahprāṇahara group of marmans shows predominantly fiery characteristics; the kālāntaraprāṇahara group has characteristics pointing to a predominance of fire and water; the viśalyaghna group possesses properties mainly related to vāta, while those of the vaikalyakara group are mainly related to water; the characteristics of the rujākara group are dominated by a mixture of fire and vāta (6.16).

An alternative view, brought forward by some authorities, is as follows: all five components (muscular tissue, sirā, snāyu, bone, sandhi) of a marman are manifestly present in the sadyahprāṇahara group; the other four groups are characterized by the absence or relative insignificance of one, two, three or four of the components. This view is not correct, since blood appears even when a marman of the bones is injured (6.17).

Usually, the four types of sirā<sup>210</sup> are present in a marman; they provide the other four components with the substances needed by them and thus maintain the body; on injury to a marman, vāta increases, surrounds the sirās, and causes intense pains; the body gets damaged and consciousness is impaired. This is the reason for the basic rule that a physician should always carefully examine a marman before proceeding, for example, to the extraction of a śālya (6.18–21).

The effects of an injury to one of the five groups of marman become gradually milder when this injury occurs in the neighbourhood (anta)<sup>211</sup> of a marman (6.22). Injury to a sadyahprāṇahara marman is fatal within a week; injury to a kālāntaraprāṇahara marman within half a month or a month; injury to a kṣipra may, however, sometimes quickly lead to death; injury to marmans of the viśalyaghna and vaikalyakara groups are sometimes lethal (6.23).

The location of the marmans in the extremities and the disorders resulting when they are injured are described (6.24); the same regarding the marmans in abdomen and chest (6.25), back (6.26), neck and head (6.27);<sup>212</sup> the measurements of the marmans (6.28–29);<sup>213</sup> the usefulness of knowledge concerning these measurements (6.30).

The fact that amputation of a limb does not lead to death is explained (6.31); injury to the marmans called kṣipra and talahṛdaya results in the loss of very much blood and in severe pain; amputation of hand or foot above the wrist or ankle is necessary in such cases in order to save the life of the patient (6.32–33ab).

The importance of knowledge of the marmans is stressed (6.33cd–34ab). All kinds of traumata, loss of limbs, etc., may be lived through if the marmans remain free from injury (6.34cd–35ab). One does not survive injury to the marmans, because these are the seats of soma (= kapha), vāta, tejas (= pitta), sattva, rajas, tamas, and the bhūtātman (6.35–36ab).

The features of injury to each of the five groups of marman are described (6.36cd–40). The signs of injury to parts lying near a marman resemble those of injury to the marman itself (6.41). Injury to a marman has always serious consequences, leading to either disability or death (6.42), and belongs to the conditions which are the most difficult to treat (6.43).

Chapter seven, called sirāvarṇavibhaktiśārīra, is devoted to the sirās. The seven hundred sirās<sup>214</sup> provide the body with what it needs, thus protecting and preserving it. The navel is the origin (mūla) of the sirās; thence they spread, upwards, downwards and obliquely (7.3). The navel, to which all the sirās are attached, is the seat of the prāṇas; it resembles the nave of a wheel (cakranābhi), surrounded by spokes (araka) (7.4–5).

There are forty principal sirās (mūlasirā), divided into four groups of ten, which transport vāta, pitta, kapha and blood; each group splits up into one hundred and seventy-five branches when reaching their respective seats; these seats are the seats of vāta, pitta, kapha, and liver and spleen (7.6).

One leg (sakthi) has twenty-five sirās which carry vāta; the other leg and the two arms possess the same number. The trunk (koṣṭha) has thirty-four of these sirās; eight of these are present in the ano-rectal region (guda), penis (medhṛa) and pelvic region (śroṇi); two are present in each lateral part of the chest (pārśva), six in the back, six in the abdomen, and ten in the anterior part of the chest (vakṣas). Forty-one sirās are found in the region above the clavicles; fourteen among these are present in the neck, four in the ears, nine in the tongue, six in the nose, and eight in the eyes. This makes a total of one hundred and seventy-five vāta-carrying sirās. The other sirās are similarly distributed, with this difference that the eyes have ten and the ears two sirās which transport pitta (7.7).

The functions of normal vāta, pitta, kapha and blood, when being transported in their sirās, are described; when excited, they cause the diseases known to be caused by them (7.8–15). Sirās which exclusively carry vāta, pitta, kapha or blood do not exist, for corrupted doṣas, coalesced with each other (mūrchita) and coursing through (the whole body), will certainly leave their own pathways (unmārgagamana); for this reason the sirās are called sarvavahā, i.e., transporting the whole (group mentioned) (7.16–17).

The vāta-transporting sirās are ruddy (aruṇa) in colour, those transporting pitta are warm and dark blue (nīla), those carrying kapha are light (gaura) in colour, cold and stable (sthira), those carrying blood are red (rohiṇa) and neither particularly warm nor particularly cold (7.18).

Some of the sirās should not be opened, because this would result in disability (vaikalya) or death. Regarded as not to be pierced (avyadhya) are sixteen sirās in the extremities, thirty-two in the trunk, and fifty in the region above the clavicles (7.19–21).

Out of the hundred sirās in a leg the one called jāladhara<sup>215</sup> should not be pierced, nor three internal ones, namely the two urvīs and the lohitaṅga; this also applies to the other leg and the two arms, which makes a total of sixteen unsuitable sirās in the extremities. Out of the thirty-two sirās in the pelvic region eight should not be cut, namely the two present in each viṭapa and the two in each kaṭīkataruṇa; out of the eight sirās in each lateral part of the chest one should avoid the one going upwards on each side and the two located in the pārśvasandhis; out of the twenty-four sirās found on each side of the vertebral column<sup>216</sup> one should avoid the two upwards going ones of the bṛhatīs; out of the twenty-four sirās of the abdomen one should avoid the two situated above the penis and the two found on each side of the line of hair between pubic region and



navel (romarājī);<sup>217</sup> out of the forty sirās in the anterior part of the chest (vakṣas) one should avoid a number of fourteen: two in the cardiac region, two in each stanamūla, and eight in the two stanarohitas, apalāpas and apastambhas; thus the total of sirās to be avoided in the trunk is thirty-two.

One hundred and sixty-four sirās are found in the region above the clavicles; the neck has fifty-six sirās, out of which sixteen should be avoided: the twelve which are called marman,<sup>218</sup> the two kṛkātikās and the two vidhuras; out of the eight sirās in the region of each of the jaws,<sup>219</sup> one should avoid the two dhamanīs of each joint; out of the thirty-six sirās of the tongue, one should not cut the sixteen of the inferior surface, the two which are rasavahā (carrying taste) and the two which are vāgvahā (carrying speech); out of the twenty-four sirās of the nasal region, one should avoid those four which are situated near the nose (aupanāsika) and the one in the soft part of the palate;<sup>220</sup> out of the thirty-eight<sup>221</sup> sirās of the eyes, one should avoid the sirā of each outer corner of the eye; out of the ten sirās of the ears, one should avoid the śabdavāhinī (sound-carrying) sirā; to be avoided among the sixty sirās of the forehead (lalāṭa), which belong to the regions of nose and eyes,<sup>222</sup> are the four lying near the hair line (keśānta), one of each āvarta, and the one of the sthapanī; out of the ten sirās of the temples (śaṅkha),<sup>223</sup> one should avoid the sirā of each śaṅkhasandhi; out of the twelve sirās of the head, one should avoid the two in the utkṣepas, the one in each of the (five) sīmantas, and the one in the adhipati;<sup>224</sup> thus, fifty sirās in the region above the clavicles should be avoided (7.22).<sup>225</sup>

The last verse compares the sirās, which, taking their origin from the navel, spread through the whole body, with the roots of a lotus, which, taking their origin from the rhizome (kanda), spread through the water (7.23).

Chapter eight is devoted to phlebotomy (sirāvyadhavidhi).

The subjects dealt with are: types of patients in whom phlebotomy should not be performed; sirās unfit for the purpose: those mentioned as such (in the preceding chapter), sirās which are suitable but invisible, suitable and visible sirās which cannot be compressed (ayantrita) or which on compression do not raise up (8.3); indications for phlebotomy (8.4–5); the preparation of the patient (8.6); climatic contra-indications (8.7); the positioning of the patient and the type of bandaging to be employed for the opening of a sirā in the head, the oral cavity excepted; the positioning and bandaging for the opening of a sirā in a leg or arm; the procedure to be carried out when the patient suffers from gr̥dhrasī or viśvācī; the correct techniques for the opening of a sirā in the pelvic region (sroṇī), back or shoulders (skandha), abdomen or chest, lateral parts of the chest, penis, tongue, palate or gums; other techniques should be devised according to the requirements of the circumstances (8.8); the incision should have the depth of a barleycorn (yava) in fleshy parts of the body, but of half a barleycorn or a grain of rice only elsewhere; the instrument to be used is the vr̥himukha; the incision should be half a barleycorn deep and be made with a kuṭhārikā in bony areas (8.9); suitable days for phlebotomy in rainy season, summer and winter (8.10); the signs of successful phlebotomy (8.11–12); causes of improper bleeding after phlebotomy (8.13); indications for repetition of the procedure (8.14); the flow of blood

should be checked when still a remnant of the doṣa is present in it; this remnant should be treated with pacifying measures (8.15); the maximum amount of blood to be let in a strong and adult patient with profuse doṣas is a prastha<sup>226</sup> (8.16); the suitable sites for phlebotomy in a large number of diseases (8.17); the twenty types of defective phlebotomy and their description: durviddhā (inefficient), atividdhā (excessive), kuñcitā (crooked), piccitā (crushed by a blunt instrument), kuṭṭitā (lacerated), apasrutā (followed by only slight bleeding), adhyudīrṇā (too widely incised), anteviddhā (followed by slight bleeding due to a marginal incision), pariśuṣkā (practised on a patient with a decrease of blood and an increase of vāta), kūṇitā (incised to only a quarter of the proper length), vepitā (unsuccessful phlebotomy on a quivering sirā), anutthitaviddhā (unsuccessful phlebotomy on a sirā that is not raised up), śastrahatā (total transection of the sirā), tiryagviddhā (an almost total transection of the sirā), aviddhā (unsuccessful phlebotomy in spite of several attempts with an unsuitable instrument), avyadhā (carried out on a sirā that should not be opened), vidrutā (carelessly carried out), dhenukā (a deep incision after several attempts), and punaḥpunarviddhā (repeated small incisions); complications due to improper phlebotomy (8.18–19); phlebotomy is described as a difficult technique, because sirās are not steady by their inherent nature (svabhāva) and roll to and fro like fishes (8.20–21); bloodletting by means of phlebotomy may be regarded as half the science of surgery and is as important as the treatment with enemas in internal medicine (8.22–23); after-treatment (8.24); the various methods of bloodletting, namely phlebotomy, the application of horns, gourds, leeches, and scarifications (pada), should be employed in the reverse order, dependent on the severity of the disease; leeches should be used for the extraction of blood from deep-seated sirās; scarifications (pracchanna) are useful when collections (piṇḍita) of blood are present; phlebotomy is indicated when the (corrupted) blood has spread all over the body; horns or gourds should be used when the (corrupted) blood is present in the skin (8.25–26).

Chapter nine, called dhamanīvyākaraṇa, contains an exposition on the dhamanīs.

Twenty-four dhamanīs take their origin from the umbilical region.<sup>227</sup> The opinion of some authorities that there is no difference between the structures called sirā, dhamanī and srotas, because the latter two are simply varieties of sirā, is not correct. Dhamanīs possess their own characteristics, have their own number, and perform their own functions; they are also distinct according to the (medical) tradition. The confusion with the structures called sirā and srotas derives from their anatomical vicinity, similarity in function, and (shared) minuteness (9.3).<sup>228</sup> Out of the twenty-four dhamanīs, ten run upwards, ten downwards, and four in an oblique direction (9.4).

The ten upwards running dhamanīs go to the heart, where each divides into three branches, making thus a total of thirty. Vāta, pitta, kapha, blood and rasa are transported by two dhamanīs each; sound, vision, taste and smell are transported by two dhamanīs each; two dhamanīs serve speech, two are for other sounds (ghoṣa), two for sleep, two for awakening, two for shedding tears; two dhamanīs serve milk secretion in women and transport semen in men. These dhamanīs sustain and maintain the parts of the body above the umbilical region (9.5).

The functions of the downwards running dhamanīs are described. These go to the

pittāśaya, between the āmāśaya and pakvāśaya, where each divides into three branches. Vāta, pitta, kapha, blood and rasa are carried by two dhamanīs each; two dhamanīs, belonging to the intestines, transport (nutrients derived from the) food; two transport water; two, belonging to the urinary bladder, transport urine; two transport semen and two other ones are for its ejaculation (visarga); in females, the same dhamanīs carry and discharge ārtava; two dhamanīs, connected to the large intestine, serve defecation; the remaining eight dhamanīs serve perspiration. These dhamanīs sustain and maintain the parts of the body below the umbilical region (9.7).

The four obliquely running dhamanīs divide and re-divide into hundreds and thousands (of branches); they are actually countless, form networks in the body and bind it together. Their openings are connected with the pores of the hairs (romakūpa), where they carry sweat and rasa, thus providing the body with essential substances, internally and externally. They carry the potent constituents (vīrya) of substances used for inunction (abhyāṅga), medicinal baths (pariṣeka and avagāha), and plasters (ālepana), to the interior of the body; they are the structures responsible for experiencing agreeable and disagreeable sensations of touch (9.9).

The dhamanīs possess pores, which are just like those present in mṛṇāla and bisa;<sup>229</sup> these pores serve to supply the body with rasa (9.10).

The dhamanīs are made up of the five mahābhūtas, are present in the five sense organs, and provide the human being with the sensations derived from these senses, until the dissolution of the body (9.11).

The characteristic signs produced by injury to the structures called channel (srotas) are described. The channels distinguished are those called prāṇavaha, annavaha, udakavaha, rasavaha, raktavaha, māṃsavaha, medovaha, mūtravaha, purīṣavaha, śukravaha, and ārtavavaha.<sup>230</sup>

The heart and the dhamanīs carrying rasa constitute the roots of the two prāṇa-transporting channels; the āmāśaya and the anna<sup>231</sup>-carrying dhamanīs are the roots of the two anna-transporting channels, palate and kloman of the two water-transporting (udakavaha) channels, the heart and the rasa-carrying dhamanīs of the two rasa-transporting channels; liver, spleen and the blood-carrying dhamanīs are the roots of the two blood-transporting channels, snāyus, the skin and the blood-carrying dhamanīs are the roots of the two muscular tissue-transporting channels, the pelvic region (kati) and kidneys of the two fatty tissue-transporting channels, urinary bladder and penis of the two urine-transporting channels; pakvāśaya and ano-rectal region constitute the roots of the two faeces-transporting channels, breasts and testicles of the two seed-transporting channels, uterus (garbhāśaya) and the ārtava-carrying dhamanīs of the two ārtava-transporting channels.<sup>232</sup>

The disorders resulting from injury to each group of these channels are enumerated. Severe pain follows upon cuts in the sevānīs, together with the signs of injury to bladder and ano-rectal region. Injury to a channel may be treated like a wound after extraction of a śalya, but the prospect of recovery should never be held out (9.12).

Chapter ten,<sup>233</sup> called garbhīṇīvyākaraṇa, contains an exposition on the care for women during pregnancy, during delivery, and in the puerperium, followed by the

care for the newborn child.

The subjects dealt with are: rules regarding behaviour and diet to be observed by a pregnant woman (10.3);<sup>234</sup> the regimen to be followed from the first up to the eighth month of pregnancy (10.4);<sup>235</sup> the construction of the maternity home (sūtikāgāra); its equipment (10.5);<sup>236</sup> the signs of approaching labour (10.6); the signs of early labour (10.7);<sup>237</sup> the management of labour and delivery (10.8–9);<sup>238</sup> abnormal (pratiloma) presentations should be corrected (10.10); the treatment of protracted labour (garbha-saṅga) (10.11); the care for the newborn, the cutting of the umbilical cord, the rituals (jātakarman) to be performed (10.12–13);<sup>239</sup> the production of breastmilk, which begins on the third or fourth day after parturition (10.14); the diet of the newborn during the first three or four days, before the beginning of breast-feeding (10.15); the care to be provided in the puerperium (10.16–18);<sup>240</sup> disorders during the puerperium (10.19–20);<sup>241</sup> the management of a retained placenta (10.21);<sup>242</sup> the aetiology, symptomatology and treatment of makkalla<sup>243</sup> (10.22);<sup>244</sup> protective measures for a newborn child (10.23);<sup>245</sup> the naming ceremony (10.24);<sup>246</sup> the selection of an appropriate wet-nurse (dhātrī)<sup>247</sup> and the ritual to be performed, accompanied by mantras, on her first feeding of the child (10.25–27); unsuitable kinds of breastmilk and the ensuing disorders (10.28–29); insufficient milk secretion, its causes and treatment (10.30); the characteristics of pure breastmilk;<sup>248</sup> circumstances making the breastmilk unsuitable to the infant; cases in which an infant should not be breastfed (10.31); causes of corruption of the milk of a wet-nurse and its bad effects on the infant (10.32–33); signs enabling a physician to diagnose diseases in children (10.34–36); medicines suitable to a breast-fed child (10.37); dosages to be administered to children in various periods of the first year(s) of life, dependent on their diet (10.38); medicines for breastfed children should be applied to the breasts of the one who nurses it (10.39); treatments not fit for breast-fed children (10.40–41); the treatment of a children's disease in which the brain tissue (mastuluṅga)<sup>249</sup> shrinks (kṣaya) and vāta bends down the palatal bone (tālvaśthi)<sup>250</sup> (10.42–43ab); the treatment of inflammation of the navel, called tuṇḍi (10.43cd–44ab); the treatment of inflammation of the anal region (gudapāka) (10.44c-f);<sup>251</sup> medicated ghees that can be prescribed to children of different ages (10.45); rules for the care of a child (10.46–47); substitutes for breastmilk (10.48); weaning (10.49); the protection of a child against the attacks of malevolent beings (grahopasarga) (10.50); the general symptoms of a child afflicted by a graha; the afflictions by grahas will be described more elaborately in the Uttara(tantra) (10.51); as soon as a child is ready for it, one should start its instruction, in agreement with the varṇa (social class) to which it belongs (10.52); a boy should be married, when he has attained the age of twenty-five years, to a girl whose age is sixteen years (10.53);<sup>252</sup> the bad effects on the child of conception before the mentioned marriageable ages (10.54–55); features making men and women unfit for procreation (10.56); disorders of pregnancy and their treatment:<sup>253</sup> imminent abortion, an excess of foetal movements (garbhasphuraṇa), foetal displacement (prasraṇisana), repeated displacement, painful sensations (vedanā), retention of urine (mūtrasaṅga), ānāha (retention of faeces accompanied by abdominal distension), excessive loss of blood, pain not accompanied by bleeding, miscarriage, pains in bladder and abdomen, resorption (laya) of the foetus, prolongation of pregnancy beyond the

proper time, drying up of the foetus (śuṣkagarbha), and nāgodara<sup>254</sup> (foetal death, followed by withering) (10.57); the treatment of imminent miscarriage (garbhasrāva) in the first to seventh months of pregnancy (10.58–62) and in the eighth to tenth months (10.63–65); a (second) child, born six years after a first one, has a short span of life (10.66); special rules for the treatment of diseases in pregnant women (10.67); four electuaries (prāśa) which promote the bodily and mental development of a child (10.68–70).

## Chapter 4

### Cikitsāsthāna

Chapter one (dvivraṇīya)<sup>1</sup> is devoted to the management of the two kinds of sores (vraṇa).

The subjects dealt with are: the two kinds of sores: endogenous (śārīra) and exogenous (āgantū);<sup>2</sup> endogenous sores are caused by vāta, pitta, kapha, blood, and combinations of these; exogenous sores are due to traumata (abhighāta) of various kinds<sup>3</sup> (1.3); exogenous sores should, first of all, be treated with cooling measures (śītakriyā) of the same kind as in pitta disorders, in order to pacify the heat (ūṣman) spreading from the site of the lesion (kṣata), and, in addition, honey and ghee should be applied in order to promote union (of the edges); the necessity of these first measures justifies the distinction of two kinds of sores; in a later stage,<sup>4</sup> (exogenous sores) can be treated in the same way as endogenous ones (1.4);<sup>5</sup> there are fifteen varieties of sores, as discussed already in the vraṇapraśna chapter;<sup>6</sup> some add the clean sore as the sixteenth variety (1.5); the symptoms of sores are of two kinds: common (sāmānya) and specific (vaiśeṣika); the symptom common to all of them is the presence of pain (ruḥ); the term vraṇa refers to the loss of intactness (vicūrṇana)<sup>7</sup> of the body and the process through which a sore is produced; specific symptoms are those caused by the doṣas (1.6); the symptoms of sores caused by vāta, pitta, kapha, blood, and the various combinations of these factors (1.7);<sup>8</sup> the sixty therapeutic procedures (upakrama) for the management of sores:<sup>9</sup> apatarpaṇa (reduction of food intake), ālepa (the application of pastes), pariṣeka (sprinkling with medicated fluids), abhyaṅga (anointing), sveda (sudation), vimlāpaṇa (gentle massage), upanāha (the application of poultices), pācana (suppuration-promoting measures),<sup>10</sup> visrāvaṇa (bloodletting), sneha (the internal use of fatty substances), vamaṇa (the administration of emetics), virecana (purgation), chedana (excision), bhedana (incision), dāraṇa (the application of medicines which make a swelling burst), lekhaṇa (scarification), eṣaṇa (probing), āharaṇa (extraction), visrāvaṇa (by means of) vyadhana (drainage by means of puncturing),<sup>11</sup> sṭvana (suturing), saṃdhāna (approximation of wound edges), pīḍana (the application of medicinal pastes which help to squeeze out accumulated pus),<sup>12</sup> ṣonitasthāpaṇa (the application of styptics), nirvāpaṇa (cooling measures), utkārikā (the application of the warming poultices called utkārikā), kaṣāya (the application of decoctions), varti (the use of wicks), kalka (the use of pastes), sarpiś (the use of medicated ghees), taila (the use of medicated oils), rasakriyā (the use of inspissated extracts), avacūrṇana (the application of dusting powders), vraṇadhūpaṇa (fumigation), utsādana (the promotion of granulation, thus raising the bed of the sore), avasādana (measures removing an excess of granulation tissue, thus depressing the bed

of the sore), mṛḍakarman (softening),<sup>13</sup> dāruṇakarman (making soft tissues firmer),<sup>14</sup> kṣāraakarman (the application of caustics), agnikarman (cauterization), kṛṣṇakarman (inducing a darker colour), pāṇḍukarman (making the new skin assume a lighter colour), pratisāraṇa (rubbing), romasaṃjanana (promotion of the growth of hair),<sup>15</sup> lomāpaharaṇa (depilatory measures),<sup>16</sup> bastikarman (the application of enemas), uttarabastikarman (the application of uttarabastis), bandha (bandaging), pattadāna (the application of leaves on the surface of a sore),<sup>17</sup> kṛmighna (the application of drugs which kill animals called kṛmi, e.g., the larvae of insects), brīḥhaṇa (restorative measures), viṣaghna (drugs useful against poisons), śirovirecana (evacuation of the head), nasya (errhines), kavaladhāraṇa (gargles and mouth washes), dhūma (medicinal smoking), madhu (the internal use of honey), sarpis (the internal use of ghee), yantra (instruments), āhāra (dietary measures), and rakṣāvidhāna (protective measures) (1.8); kaṣāyas (decoctions), vartis (wicks), kalkas (pastes), ghees, oils, rasakriyās (in-spissated extracts), and avacūrṇas (dusting powders) serve to purify (śodhana) a sore and to promote its healing (ropaṇa); eight (out of the sixty procedures) are surgical interventions;<sup>18</sup> śoṇitasthāpana, kṣāraakarman, agnikarman, instruments (yantra), dietary rules (āhāra), protective measures (rakṣāvidhāna), and the application of bandages (bandhaviddhāna) have already been described;<sup>19</sup> sneha (oleation), svedana (sudation), vamaṇa (emetics), virecana (purgatives), basti (enemas), uttarabastis, śirovirecana (evacuation of the head), nasya (errhines), dhūma (medicinal smoking), and kavaladhāraṇa (gargles and mouth washes) are subjects that will be described elsewhere (in this treatise); the remaining procedures will be dealt with in this (chapter) (1.9); the eleven procedures which begin with apatarpaṇa and end with virecana<sup>20</sup> are particularly useful in counteracting swelling (śoṭha), described earlier as a disorder of six types;<sup>21</sup> these same procedures are not contra-indicated when a swelling has developed into a sore (vraṇa); the remaining (forty-nine) procedures are efficacious when sores are present (1.10); particulars regarding each of the procedures mentioned, their indications, ingredients of preparations employed, etc. (1.11–133); a recapitulatory verse characterizes sores as having six roots (mūla),<sup>22</sup> eight sites (aṣṭapaṇigrahīṇ),<sup>23</sup> and five groups of symptoms;<sup>24</sup> they are treated by means of the sixty procedures; their cure depends on four factors<sup>25</sup> (1.134); the addition of ingredients, similar to those mentioned in a rather simple formula, is not prohibited; rare drugs mentioned in a compound formula may be omitted, and those unavailable replaced by substitutes; if a drug belonging to a particular group should prove to be harmful in a particular case, one should leave it out and take a more suitable one (1.135–137); the local complications of sores are five in number: smell, etc.; the general complications are fever, diarrhoea, fainting (mūrchā), hiccup, vomiting, aversion to food (arocaka), respiratory problems, cough, digestive disorders (avipāka), and thirst (1.138–139);<sup>26</sup> the discussion of the treatment of sores will be continued in the chapter on sadyovraṇa<sup>27</sup> (1.140).

Chapter 20 is devoted to recent traumatic wounds and sores (sadyovraṇa) and their treatment.<sup>28</sup>

The subjects dealt with are: the various shapes (ākṛti) of sores in various parts

of the body, caused by weapons with diverse edges (dhārā) and tips (mukha); sores caused by the doṣas may assume the same shapes when bursting spontaneously (2.4–8ab); the six main types of traumatic wounds: chinna (cut), bhinna (stabbed), viddha (pierced), kṣata (contused), piccita (crushed), and ghrṣṭa (abraded) (2.8cd–10ab);<sup>29</sup> the characteristics of the chinna and bhinna types (2.10cd–12ab); the organs collectively called koṣṭha: āmāśaya, agnyāśaya, pakvāśaya, mūtrāśaya (urinary bladder), rudhirāśaya (the receptacle of blood), hṛd (heart), uṇḍuka, and phupphusa (2.12cd–13ab); the general symptoms of the bhinna type when the koṣṭha is affected (2.13cd–16ab); the symptoms of bleeding into the āmāśaya (2.16cd–17ab) and pakvāśaya (2.17cd–18ab);<sup>30</sup> the intestines become filled with blood even when (the walls of) the receptacles have remained intact (abhinna), for blood oozes through the subtle pores (kha), in the same way as water oozes through the pores of a closed pitcher (dipped in water) (2.18cd–19ab); the characteristics of the viddha, kṣata, piccita and ghrṣṭa types (2.19cd–23ab); the general treatment of the six types of sadyovraṇa (2.23cd–29ab); the treatment of chinna wounds of the head and the lateral parts of the chest<sup>31</sup> (2.29cd–30); a severed ear should be repaired in the way described (2.31);<sup>32</sup> the treatment of a chinna wound in the region of the krkātikā (2.32–33); the treatment of chinna wounds of the extremities (2.34–35), back, and anterior part of the chest (2.36); the treatment of patients with a whole arm or leg torn off (2.37); recipes promoting wound healing (2.38–41ab); the treatment of bhinna injuries to the eyes (2.42–45ab); the treatment of bhinna injuries to the abdomen that result in the extrusion of lumps (varti) of fatty tissue (medas) (2.45cd–49); a foreign body (śalya) that has penetrated into the koṣṭha and got stuck there gives rise to the complications already described<sup>33</sup> (2.50); characteristics of incurable patients (2.51); the treatment of bleeding into the āmāśaya and pakvāśaya (2.52–54); signs indicating that a patient with a bhinna type of injury to his koṣṭha will survive (2.55); the replacement of extruded intestines which have remained intact (abhinna);<sup>34</sup> the repair of torn intestines, before replacing them, by joining the torn parts by means of the bites of ants<sup>35</sup> (2.56–60ab);<sup>36</sup> enlargement of the wound if replacement would be too difficult otherwise; suturing of the abdominal wall (2.60cd–62ab); after-treatment (2.62cd–66ab); the treatment of extruded testicles (2.66cd–69ab); injuries to the skull;<sup>37</sup> the insertion of a plug (varti), made of hair, is necessary, after the removal of a foreign body, in order to prevent the discharge of brain tissue (mastuluṅga) (2.69cd–71ab); a plug soaked in oil (snehavarti) should be inserted after the removal of a foreign body from any other part of the body (2.71cd–72ab); deep wounds with small openings should be filled with cakrataila by means of a thin tube,<sup>38</sup> after removal of all the blood (2.72cd–73ab);<sup>39</sup> medicated oils which promote wound healing (2.73cd–76ab); the treatment of the kṣata, piccita and ghrṣṭa types of sadyovraṇa (2.76cd–77ab); the treatment of patients with multiple injuries due to a fall or other causes; these patients should be placed in a tub (droṇi) filled with oil (2.77cd–78); the external and internal use of oils and ghee in the treatment of patients with recent wounds (sadyovraṇa) (2.79–81); the recipe of a wound-healing oil (2.82–85ab); some rules for the treatment of recent wounds in general (2.85cd–86ab); the treatment of corrupted wounds (duṣṭavraṇa) (2.86cd–92); the treatment of wounds corrupted by vāta, pitta, or kapha (2.93–94ab); the rules



for the treatment of corrupted wounds also apply to the sores occurring in meha and kuṣṭha (2.94cd); the defense of the distinction of six types of sadyovraṇa, and the rejection of the views of those admitting a larger number (2.95–97).

Chapter three is devoted to the treatment of fractures and dislocations (bhagna).<sup>40</sup>

The subjects are: general features making fractures and dislocations hard to cure (3.3);<sup>41</sup> dietary and behavioural rules for patients with a fracture or dislocation (3.4); recommendations regarding diet (3.5); trees possessing a bark suitable for the making of splints (kuṣā) (3.6);<sup>42</sup> local applications in the form of plasters (ālepana) (3.7); rules for changing the bandage and for its proper degree of tightness (3.8–10); rules for local irrigations (pariṣeka) (3.11–13ab); a recipe for internal use (3.13cd–14ab); the treatment of a compound fracture (3.14cd–15ab); the dependence of the healing of a fracture on the age of the patient (3.15cd–17ab); the various ways of reducing fractures and dislocations (3.17cd–19); the utpiṣṭa and viṣliṣṭa types of dislocation should not be reduced, but treated with cold irrigations and plasters (pradeha) (3.20); the technique of splinting (3.21–22ab); the treatment of fractures and dislocations at particular sites: the junction of nail and skin (3.23), the fingers and toes (3.24), the sole of the foot (3.25), lower leg or thigh (3.26), hip joint (ūrvasthi)<sup>43</sup> (3.27), pelvis (3.28), ribs (parśuka) (3.29–30), shoulder joint (aṃśasandhi) (3.31), elbow, knee, ankle and wrist (3.32–33), palm of the hand (3.34–35), clavicle (akṣaka) (3.36), upper arm (3.37ab), neck (3.37cd–39ab), jaw (3.39cd–40), teeth (3.41–43ab),<sup>44</sup> nose (3.43cd–44), (pinna of the) ear (3.45), and skull (3.46); the treatment of sprains (3.47); the immobilization of a patient on a fracture-bed (kapāṭaśayana)<sup>45</sup> and the indications for this type of treatment (3.48–51); the treatment of a malunited fracture by refracturing and setting it in the right position (3.52); debridement of a compound fracture by trimming the projecting part of the bone (3.53); general measures for fractures of the upper part of the body (3.54);<sup>46</sup> the preparation of gandhataila and its indications (3.55–66); another useful medicated oil (3.67–68); the prevention of infection and suppuration (pāka) (3.69); the signs of successful healing (3.70).

Chapter four is devoted to the treatment of vāta diseases.<sup>47</sup>

The subjects are: the treatment of vāta located in the āmāśaya by means of the recipe called ṣaḍdharana (4.3–4);<sup>48</sup> the treatment of vāta located in the pakvāśaya (4.5), bladder, ears, etc. (4.6), skin, muscular tissue, blood and sirāṣ (4.7), snāyus, junctures and bones (4.8); the treatment of vāta, confined within a bone, by perforating the bone by means of a hand drill (pāṇimantha),<sup>49</sup> and sucking vāta out through a tube (4.9); the treatment of vāta lodged in the semen (4.10ab); the general treatment of vāta affecting the whole body or one of its limbs (4.10cd–11); combinations of vāta with kapha, pitta and blood should be treated by means of procedures which are contradictory (in pacifying one, but exciting another doṣa) (4.12ab); the treatment of supṭivāta (local numbness)<sup>50</sup> (4.12cd–13ab); dietary items beneficial in vāta diseases (4.10cd–14ab); the preparation of the type of poultice called sālvaṇa;<sup>51</sup> the ways of applying it; special rules when contractures are present (4.14cd–18ab);<sup>52</sup> emetics and errhines in vāta diseases (4.18cd–19ab); śirobasti and bloodletting as useful measures when vāta

has affected the head (4.19cd–20ab); the usefulness of enemas in all kinds of vāta diseases (4.20cd–21ab); a long series of general measures to be employed in the treatment of vāta diseases (4.21cd–26); the preparation of tilvaka-, aśoka- and ramyakaghṛta (4.27);<sup>53</sup> the preparation of aṇutaila (4.28);<sup>54</sup> the preparation of sahasrapāka and śatapāka medicated oils (4.29);<sup>55</sup> the preparation of pattralavaṇa (4.30), sneha- or kāṇḍalavaṇa (4.31), and kalyāṇakalavaṇa (4.32–33).

Chapter five is devoted to the treatment of serious vāta diseases (mahāvātavvyādhī).

Its subjects are: vātaśoṇita as a single disease, by some authorities incorrectly described as of two kinds, called uttāna (superficial) and avagāḍha (deep); this distinction is to be rejected, because vātaśoṇita, in the same way as kuṣṭha, begins by affecting the superficial constituents of the body and gradually invades the deeper ones (5.3);<sup>56</sup> the aetiology, pathogenesis, chief symptoms, and prodromes of vātarakta (= vātaśoṇita);<sup>57</sup> if neglected, the disease progresses and leads to disability (vaikalya) (5.4); persons predisposed to the disease (5.5); patients to be accepted for treatment and complications to be regarded as contra-indications (5.6);<sup>58</sup> the treatment of vātarakta with a predominance of vāta (5.7), pitta (5.8), blood (5.9), kapha (5.10), and a combination of doṣas (5.11);<sup>59</sup> the general treatment of vātarakta (5.12);<sup>60</sup> prescriptions against the pains occurring in vātarakta (5.13);<sup>61</sup> the mentioned treatments may easily cure vātarakta of recent origin and be alleviating in chronic cases (5.14); things beneficial (5.15–16) and harmful (5.17) to patients with vātarakta; conditions making the disease called apātānaka amenable to treatment; the treatment of apātānaka (5.18);<sup>62</sup> conditions making a patient with pakṣāghāta<sup>63</sup> acceptable for treatment; the description of the treatment procedures,<sup>64</sup> to be continued for a period of three to four months (5.19); manyāstambha<sup>65</sup> should be treated in the same way as pakṣāghāta; errhines which remove vāta and kapha, and dry methods of sudation (rūkṣasveda), are particularly useful (5.20); the treatment of apatantraka (5.21)<sup>66</sup> and ardita (5.22);<sup>67</sup> vāta diseases in which phlebotomy is indicated (5.23); the treatment of karṇaśūla (otalgia) (5.24);<sup>68</sup> tūṇī<sup>69</sup> and pratūṇī<sup>70</sup> (5.25), ādhmāna<sup>71</sup> and pratyādhmāna<sup>72</sup> (5.26), aṣṭhīlā<sup>73</sup> and pratyāṣṭhīlā<sup>74</sup> should be treated in the same way as gulma and internal abscesses (5.27); the preparation of hīṅgvācīcūrṇa and its indications (5.28);<sup>75</sup> a disease caused by vāta singly, by vāta in combination with one or more doṣas, or by vāta covered (āvrta) by one of the dhātus, should be recognized by means of its signs and their due consideration (ūhā) (5.29);<sup>76</sup> a painful, firm swelling, cold to the touch, is caused by a combination of vāta and medas (fatty tissue); it should be treated like a local swelling (śoṭha) (5.30);<sup>77</sup> the disease called ūrustambha or āḍhyavāta,<sup>78</sup> which arises when vāta, covered by kapha and medas, becomes lodged in the thighs; the symptoms of this disease (5.31–33ab); its treatment (5.33cd–39);<sup>79</sup> the properties, actions, uses, and indications of guggulu (5.40–45).<sup>80</sup>

Chapter six is devoted to the treatment of haemorrhoids (arśāṃsi).<sup>81</sup>

The subjects dealt with are: the four methods of treatment for haemorrhoids: treatment with medicines, treatment with caustics (kṣāra), cauterization (agni), and surgical measures (śāstra);<sup>82</sup> types of haemorrhoids suitable to these treatments (6.3); the treat-

ment with a caustic (6.4); haemorrhoids caused by vāta and kapha should be treated with cautery and caustics, those by pitta and blood with mild caustics only (6.5); the signs of adequate, excessive and inadequate cauterization (6.6); the treatment of some particular types of haemorrhoids and some complications (6.7); a caustic should be applied by means of a ladle (darvī), brush (kūrcaka), or rod (śalākā); when a prolapse of the rectum is present, a caustic may be applied without using any instrument; dietary rules for patients with haemorrhoids (6.8); post-operative measures (6.9); disorders arising from the improper use of caustics, cautery, or surgery (6.10);<sup>83</sup> the description of the rectal speculum (6.11);<sup>84</sup> pastes (ālepa, piṣṭa) which may make haemorrhoids disappear (6.12); a series of recipes for the treatment of haemorrhoids which are not visible (from outside) (6.13–15);<sup>85</sup> general rules for the medicinal treatment, dependent on the doṣa(s) involved (6.16); the treatment of haemorrhoids with bhallātaka preparations (6.17–18);<sup>86</sup> vṛkṣaka (= kuṭaja) and aruṣkara (= bhallātaka) are the best medicines against haemorrhoids (6.19); caustics and cautery cure visible haemorrhoids (6.20); things to be avoided by patients suffering from haemorrhoids (6.21–22).

Chapter seven is devoted to the treatment of aśmarī (urinary calculi).<sup>87</sup>

Its subjects are: aśmarī as a serious disease, resembling death itself; it is amenable to medicinal treatment in the early stages, but in an advanced stage surgical intervention is necessary (7.3); treatment in the stage when prodromes only are present (7.4); the medicinal treatment of calculi caused by vāta (7.5–9ab), pitta (7.9cd–13), and kapha (7.14–16); the treatment of śarkarā (gravel) (7.17–19ab); more recipes against calculi and gravel (7.19cd–26); conditions making surgical treatment inevitable (7.27–29);<sup>88</sup> pre-operative measures, the positioning of the patient, the manipulation of the calculus before its removal (7.30); signs presenting themselves during the preparatory stage which indicate that it is better to abstain from carrying out the operation (7.31–32); the lithotomic operation (7.33–34);<sup>89</sup> post-operative management; the treatment of śukrāśmarī or gravel that has got stuck in the urethra (7.35); organs that should not be injured during lithotomy; complications arising from injury to these organs (7.36); the eight marmans to be avoided by a surgeon performing lithotomy: the sevānī (the raphe of the perineum), the semen-expelling (śukrahara) channels, the channels belonging to the testicles, the ano-rectal region, the mūtrapraseka,<sup>90</sup> the urinary passage (mūtravaha), the female genitals (yonī), and the bladder<sup>91</sup> (7.37–38).

Chapter eight is devoted to the treatment of bhagandara (ano-rectal fistulas).<sup>92</sup>

Its subjects are: the śāmbūkavarta type and the one caused by a foreign body (śālya) are incurable; the remaining ones are curable with difficulty (8.3);<sup>93</sup> a bhagandarapiṭṭakā should, when not suppurating, be treated by means of the eleven procedures beginning with apatarpaṇa and ending with virecana;<sup>94</sup> suppuration makes surgical treatment necessary; the surgical intervention: excision of the fistular track; alternative treatments: cauterization or the application of caustics (8.4); particulars with regard to the surgical interventions in a fistula of the śataponaka type (8.5–9ab); the shapes of the incisions to be made in fistulas with many openings (i.e., the śataponaka type): lāṅgalaka,<sup>95</sup> ardhālāṅgalaka,<sup>96</sup> sarvatobhadra,<sup>97</sup> and gotīrthaka<sup>98</sup>

(8.9cd–10); passages with a discharge (srāvamārga) should be cauterized (8.11); after-treatment by means of sudation (sveda) (8.12–16ab); medicines to be taken after sudation (8.16cd–17ab); fluids for irrigation of the wound(s) and the anal region (8.17cd–19); particulars with regard to the treatment of the uṣṭragrīva (8.20–23ab) and the parisrāvin types of bhagandara (8.23cd–25); the shapes of the incisions to be made when the fistula is of the parisrāvin type; the subsequent measures (8.26–28ab); the treatment of fistulas in children (8.28cd–29); a recipe for local application (8.30–31ab); particulars with regard to the treatment of the exogenous (= unmārgin) type (8.31cd–33ab); complete recovery should not be expected in the exogenous type; the type caused by all three doṣas should not be accepted for treatment (8.33cd–34ab); local application of aṇutaila<sup>99</sup> is beneficial for relieving the pain after surgery (8.34cd–35ab); other measures for relieving the pain: particular types of sudation and a sitz bath (8.35cd–36), poultices with the skins of particular animals or poultices of the sālvaṇa type (8.37); a series of recipes for the treatment of fistulas (8.38–52);<sup>100</sup> the adaptation of the rectal speculum (arśoantra) for use in cases of ano-rectal fistula (8.53); things to be avoided for a year after healing of a fistula (8.54).

Chapter nine is devoted to the treatment of kuṣṭha.<sup>102</sup>

Its subjects are: the aetiology of kuṣṭha (9.3);<sup>103</sup> articles of diet, dietary habits and patterns of behaviour which are harmful to patients suffering from kuṣṭha (9.4); articles of diet and some medicinal preparations which are beneficial (9.5);<sup>104</sup> the general management of kuṣṭha in the prodromal stage and in those stages where the first to the fourth elements of the body are affected; kuṣṭha is incurable when the fifth element has become involved (9.6); medicated ghees and oils to be prescribed in kuṣṭha with a predominance of vāta, pitta or kapha; tuvaraka<sup>105</sup> or bhallātaka oil may be used in kuṣṭha of all types (9.7); the preparation of mahātiktakaghṛta<sup>106</sup> and its indications (9.8); the preparation of tiktakaghṛta<sup>107</sup> and its indications (9.9); after oleation and sudation of the patient with one of these ghees (i.e., mahātiktaka or tiktaka), the physician should perform phlebotomy and open from one up to five sirās; the raised (utsanna), round patches (maṇḍala) (of kuṣṭha) should be scraped or scarified many times; subsequently, a paste should be applied;<sup>108</sup> seven different pastes are described (9.10–11ab);<sup>109</sup> recipes for preparations to be applied locally in cases of dadru (9.12–14) and śvitra<sup>110</sup> (9.15–22);<sup>111</sup> various preparations against kilāsa and śvitra (9.23–29ab); the preparation, uses and indications of nilaghṛta (9.29cd–33)<sup>112</sup> and mahānilaghṛta (9.34–38);<sup>113</sup> some prescriptions against śvitra and other disorders (9.39–40); procedures which remove the doṣas in cases of kuṣṭha, and prevent that the disease becomes incurable; the intervals for repeating these procedures (9.41–43); various prescriptions against kuṣṭha (9.44–50); medicinal preparations which are useful in threatening loss of body parts or when living organisms are present in the lesions; in general, the inflamed and ulcerating lesions of kuṣṭha should be treated in the same way as duṣṭavraṇa<sup>114</sup> (9.51–53); the recipes of vajrakataila<sup>115</sup> and mahāvajrakataila, useful against kuṣṭha, duṣṭavraṇa, and some other disorders (9.54–64ab); a useful oil (9.64cd–66ab); some preparations with khadira (9.66cd–67ab); some other preparations (9.67cd–68ab); the

usefulness of daily purgation (9.68c-f); further recipes (9.69–71); general recommendations for kuṣṭha patients (9.72).

Chapter ten is concerned with the treatment of mahākūṣṭha<sup>116</sup> according to its title, but the introductory verse (10.3) makes clear that medicines will be described which may be employed in serious (dāruṇa) cases of kuṣṭha, meha, kapha diseases, and generalized swelling (sarvāṅgaśoṭha), as well as in obese persons wanting to reduce their weight.

The subjects discussed are: the preparation of some manthas (10.4);<sup>117</sup> the dietary regimen to be observed during the treatment with these manthas (10.5); the preparation of a number of ariṣṭas (10.6),<sup>118</sup> āsavas (10.7),<sup>119</sup> surās (10.8),<sup>120</sup> avalehas (electuaries) (10.9), and cūrṇas (powders) (10.10); the preparation of an ayaskṛti (an iron-containing compound drug); any metal may be used as the base for this type of drug, which increases the span of life<sup>121</sup> (10.11); two more iron-containing preparations, called auśadhāyaskṛti and mahauśadhāyaskṛti (10.12); the preparation of drugs containing the wood of the khadira tree as the basic material;<sup>122</sup> the same procedure may be applied to the heartwood (sāra) of other trees (19.13); preparations with guḍūcī (10.14); a medicated ghee (10.15).

The concluding verse (10.16) declares that the description of the preparations mentioned in this chapter will enable an intelligent physician to make countless more varieties of mantha, ariṣṭa, āsava, etc.

Chapter eleven is devoted to the treatment of prameha (urinary disorders).<sup>123</sup>

The subjects dealt with are: the two groups of urinary disorders: congenital (sahaja) and caused by unwholesome things; the congenital group is caused by defects (doṣa) of the maternal and paternal seed (bīja), the other one by unhealthy dietary habits; patients with a type of prameha belonging to the former group are lean and dry, do not eat much, are usually thirsty, and in particular restless (parisaraṇaśīla); those with a prameha of the latter group are obese, voracious, glossy (snigdha), and inclined to sitting or lying down, and sleeping much (11.3);<sup>124</sup> the general management of these two groups of patients (11.4);<sup>125</sup> articles of diet to be avoided by patients with prameha (11.5) or to be recommended to them (11.6);<sup>126</sup> purificatory procedures in the preliminary stage of treatment (11.7);<sup>127</sup> five recipes for general use in prameha (11.8); specific prescriptions for each of the ten pramehas due to kapha, the six pramehas due to pitta, and the four pramehas due to vāta (11.9);<sup>128</sup> ariṣṭas, āsavas, lehas and ayaskṛtis useful in prameha; foods prepared from barley,<sup>129</sup> medicated gruels (yavāgū), and decoctions may also be prescribed (11.10); special prescriptions for wealthy patients and members of a royal family; recommended physical exercises<sup>130</sup> for these types of patients in an advanced stage of prameha (11.11); special rules concerning diet and behaviour for patients who are poor and without relatives, those who are affluent (mahādhana), those who are brāhmaṇas, and those belonging to the other classes (11.12); a poor patient who unrelentingly follows the directions of his physician, may get rid of the disease within a year (11.13).

Chapter twelve is devoted to the treatment of the boils (piḍakā) associated with prameha.<sup>131</sup>

Its subjects are: characteristics indicating curability of pramehapiḍakās (12.3);<sup>132</sup> general rules for the treatment of prameha patients who develop piḍakās; the stages of this development and the dangers involved (12.4); the preparation of dhānvantaraghṛta and its indications (12.5);<sup>133</sup> the difficulty of inducing purgation in patients with madhumeḥa, owing to the abundance of fatty tissue (medas) in their body; strong purificatory measures are therefore required; cases of prameha in which piḍakās and other complications are present always show sweetness of the urine, etc., which smells like honey (madhu); for that reason, this disorder is technically known as madhumeḥa (12.6);<sup>134</sup> sudation is contra-indicated in this disorder, because of the excess of fatty tissue, which would dissolve and make waste away the whole body (12.7); the weakness of the rasāyanī channels<sup>135</sup> prevents that the doṣas reach the upper part of the body in prameha patients; piḍakās appear for that reason in the lower half of the body of patients with madhumeḥa (12.8); non-suppurating (apakva) piḍakās should be treated like a local swelling (śopha), suppurating ones like a sore (vraṇa); various prescriptions which may further healing of the piḍakās (12.9); the preparation of an electuary (leha) useful in all types of (pra)meha (12.10); the preparation of navāyasa<sup>136</sup> and its indications (12.11); the preparation of lohāriṣṭa and its indications (12.12–19); characteristics of the urine indicating that a prameha patient should be regarded as cured (12.20).

Chapter thirteen is devoted to the treatment of madhumeḥa.<sup>137</sup>

Patients who have developed madhumeḥa and have been given up by (other) physicians may be treated by means of the prescriptions that follow (13.3).

Śilājatu is described, called thus because it exudes from rocks (śilā) heated by the sun, and resembles lac (jatu);<sup>138</sup> it has six sources (yonī); consisting of the six metals (loha), which can be recognized by their specific odour; the potency (vīrya) and taste of śilājatu correspond to the metal from which it derives; the relative superiority and inferiority of the types of śilājatu depend on these metals, the merits of which increase in the following order: tin, lead, (copper, silver, gold,) iron<sup>139</sup> (13.4–8ab). The general properties of śilājatu (13.8cd–9ab) and the best variety (13.9cd–10ab) are described, followed by the way to prepare it for medicinal use, the proper administration of the drug, and the results that may be expected from its regular employment (13.10cd–17ab).<sup>140</sup>

The mineral (dhātu) called māksika, found near (the river) Tāpī, and occurring in two varieties, with a golden and a silvery hue respectively, also possesses curative properties of a broad range, and can be employed in the same way as śilājatu (13.17cd–18). Patients using śilājatu or māksika should observe particular dietary restrictions (13.19ab).

The next subject is the treatment suitable to patients with kuṣṭha who did not benefit from pañcakarman, who preserved their trust (in the physician), and who want to live (13.19cd–20ab).<sup>141</sup>

The preparation of tuvaraka oil is described (13.20cd–23); the mode of administration of this oil, together with the preparatory measures, the mantra to be recited,<sup>142</sup> the

dietary rules, the after-treatment, etc. (13.24–28); all types of kuṣṭha are cured by this oil within five days (13.29ab). Another preparation with tuvaraka oil, very effective in kuṣṭha and meha, and a powerful rasāyana, is eulogized (13.29cd–34). A collyrium, prepared with tuvaraka pulp (majjan) and other ingredients, cures a number of eye diseases (13.35).<sup>143</sup>

Chapter fourteen is devoted to the treatment of udara (abdominal swelling).<sup>144</sup>

The subjects dealt with are: prognostic features of the various types of udara: the baddhaguda and parisrāvin types are incurable, while the remaining ones are curable with difficulty; the treatment should always be carried out without holding out hope of complete recovery; the first four (of the eight types of udara) should be treated by means of drugs, the last four require surgical treatment; udara of long standing, of whatever type, is either curable by surgery only or should be given up (14.3);<sup>145</sup> dietary and behavioural rules for udara patients (14.4);<sup>146</sup> the management of vātodara (14.5), pittodara (14.6), kaphodara (14.7), and dūṣyodara (14.8); an anulomana<sup>147</sup> treatment is useful in all cases of udara (14.9); three purgative recipes<sup>148</sup> for udara in general; their way of administration; the fourth general recipe to be employed for purgative purposes in udara and other diseases is tilvakaghṛta<sup>149</sup> (14.10); the preparation of ānāhavarti, its administration and indications (14.11); a second kind of ānāhavarti (14.12); the treatment of plīhodara (14.13); the preparation of ṣaṭpalakasarpis, useful in plīhodara and other diseases (14.14); the treatment of yakṛddālyudara is the same as that of plīhodara; more specifically, phlebotomy of the right arm is useful (14.15); cauterization of the sirā near the left thumb may bring relief to a patient with plīhodara (14.16); patients with baddhagudodara and parisrāvyudara should undergo oleation, sudation and inunction before being subjected to surgery; subsequently, their abdomen should be opened and the intestines brought out; in a case of baddhagudodara the objects or substances causing intestinal obstruction should be removed, the intestines put back, and the wound sutured; in a case of parisrāvyudara, one should remove the foreign body, cleanse the intestines, bring the edges of the rupture together, and join them firmly by the bites of black ants; the bodies of these ants can then be removed, but their heads should be left behind;<sup>150</sup> the wound should be sutured, etc., as described already; the post-operative treatment should take place in a sheltered room, where the patient should be made to sit in a droṇī full of oil or ghee; he should be kept on a milk diet (14.17); the treatment of dakodara (ascites): the preparatory stages, the positioning of the patient, the puncturing of the abdomen by means of the instrument called vṛhimukha, the insertion of a canula (nāḍī), and the draining of the fluid accumulated in the abdominal cavity; this draining should be carried out little by little, with intervals of three, four, five, six, eight, ten, twelve or sixteen days; the wound should be bandaged; the patient should be kept on particular diets for the period of a year after the operation (14.18); boiled milk and broths of the flesh of jāṅgala animals are beneficial in all types of udara (14.19).

Chapter fifteen is devoted to the management of mūḍhagarbha (foetal malpresentation).<sup>151</sup>

The extraction of a śālya consisting of a malpresenting foetus is the most difficult (of all kinds of removal of a śālya), because it has to be carried out manually in the region of the female genitals, liver, spleen, intestines and uterus. All the manipulations have to be performed with one hand only, while avoiding injury to the foetus and the pregnant woman. These manipulations consist of pushing upwards (utkarṣaṇa), pulling downwards (apakarṣaṇa), version (sthānāpavartana), cutting up (utkartana), incision (bhedana), excision (chedana), pressure (pīdana), straightening (rjūkarana), and tearing apart (dāraṇa). Therefore, after due permission from the king,<sup>152</sup> all these procedures should be carried out with the utmost care (15.3).

Eight types of malpresentation have been described.<sup>153</sup> Three types of being stuck (saṅga) (in the birth-channel) occur naturally (svabhāvagata): due to a malposition (vaiguṇya) of the head, shoulder region (aṅṣa), or buttocks (jaghana) (15.4). The physician should do his level best in order to deliver a living child; if he fails in his efforts, the cyāvanamantras<sup>154</sup> should be recited (15.5–8).

Obstetric manipulations are described which become necessary in case the foetus is dead,<sup>155</sup> in case of presentation of both legs, one leg, or the buttocks (sphigdeśa), in transverse presentation (tiryagāgata), in a presentation where the head is bent to one side (pārsvāpavṛttaśiras), and in case of presentation of both arms. The two remaining types<sup>156</sup> are incurable and make surgical intervention inevitable (15.9).

A living foetus should never be cut up by surgical means. If the situation has become unbearable, one should terminate the pregnancy and avoid any loss of time, in order to save the mother's life (15.10–11).

A number of techniques are described, all having in view the extraction of a dead foetus by cutting up those parts which got stuck up; a dead foetus should be removed as soon as possible; the instrument preferably to be used is the maṇḍalāgra (15.12–16).<sup>157</sup>

Measures to deliver a retained placenta (aparā) are described,<sup>158</sup> followed by the treatment required after its successful removal (15.17–20ab). The regimen during the puerperium and some useful prescriptions for this period are dealt with (15.20cd–28ab). The preparation of balātaila is described,<sup>159</sup> a drug that cures all vāta disorders; it is to be recommended in the puerperal period, and is effective in a long series of various disorders (15.28cd–39). Another type of balātaila can also be used (15.40–43), as well as medicated oils derived from other plants, to be prepared and employed in the same way as balātaila (15.44–47).

Chapter sixteen is devoted to the treatment of vidradhi (abscesses).<sup>160</sup>

Its subjects are: the incurability of vidradhi caused by all the doṣas together (16.3ab);<sup>161</sup> the other types should, in the unripe (āma) stage, be treated like a local swelling (śoṣha) (16.3cd); the treatment of abscesses caused by vāta (16.4–9) and pitta (16.10–16ab); the preparation of karaṇjādighṛta, useful in corrupted sores (duṣṭavraṇa) and other types of wounds and ulcers (16.16cd–22ab);<sup>162</sup> the treatment of abscesses caused by kapha (16.22cd–26), blood, and a trauma (16.27); the treatment of internal (ābhyantara) abscesses when still unripe (apakva) (16.28–33); directions for phlebotomy (16.34); the treatment of internal abscesses, when ripe (pakva) and bulging (16.35–39ab); the treatment of abscesses affecting the bone marrow (16.39cd–43).<sup>163</sup>



Chapter seventeen is devoted to the treatment of visarpa (cellulitis, erysipelas), nāḍī (sinuses), and stanaroga (diseases of the breasts).<sup>164</sup>

The subjects dealt with are: the first three of the (five) types of visarpa are curable, but those caused by concerted action of the doṣas and by a trauma (kṣata) are incurable (17.3ab);<sup>165</sup> general directions for the treatment of the curable types (17.3cd); the treatment of the types caused by vāta (17.4–5) and pitta (17.6–9); the preparation of gauryādighṛta, useful in visarpa and nāḍī caused by pitta, as well as in a series of other disorders (17.10–13);<sup>166</sup> the treatment of visarpa caused by kapha (17.14–15); procedures useful in all types of visarpa (17.16–17ab); a nāḍī caused by all the three doṣas together is incurable; the other four types require efforts in curing them (yatnāsādhya) (17.17cd); the treatment of sinuses caused by vāta (17.18–20ab), pitta (17.20cd–22), kapha (17.23–25), and a foreign body (śalya) (17.26–28); the treatment of a sinus by means of a kṣārasūtra, i.e., a thread impregnated with a caustic substance (17.29–33);<sup>167</sup> medicated wicks (varti) (17.34–36), powders, etc. (17.37–38), oils (17.39–42ab) in the treatment of sinuses; the treatment of disorders of the breastmilk (17.42cd–45ab);<sup>168</sup> the treatment of mastitis<sup>169</sup> and mammary abscesses (17.45cd–47).

Chapter eighteen is devoted to the treatment of granthi, apacī, arbuda, and galagaṇḍa.<sup>170</sup>

The subjects dealt with are: the treatment of granthi in general (18.3–4); the treatment of granthi caused by vāta (18.5–8ab), pitta (18.8cd–11), and kapha (18.12–14); the treatment of growths called māṃsakandī (18.15–16);<sup>171</sup> the treatment of granthi due to medas (18.17–20ab);<sup>172</sup> the medicinal treatment of apacī (18.20cd–23); the surgical treatment of granthi (18.24); the surgical treatment of apacī (18.25–27); after-treatment subsequent on surgery (18.28–29ab); the treatment of arbuda due to vāta (18.29cd–31), pitta (18.32–34), kapha (18.35–40), and medas (18.41–43ab);<sup>173</sup> the treatment of galagaṇḍa due to vāta (18.43cd–47), kapha (18.48–51), and medas (18.52–55).<sup>174</sup>

Chapter nineteen is devoted to the treatment of vṛddhi,<sup>175</sup> upadaṃśa, and ślīpada.<sup>176</sup>

The subjects dealt with are: things to be avoided by patients with vṛddhi, with the exception of antravṛddhi (19.3–4ab); the treatment of vṛddhi due to vāta (19.4cd–9ab), pitta (19.9cd–10), blood (19.11–12ab), kapha (19.12cd–14), medas (19.15–18ab), and urine (19.18cd–20ab); the treatment of antravṛddhi (19.20cd–22);<sup>177</sup> cauterization (19.23) and phlebotomy (19.24) in cases of vṛddhi;<sup>178</sup> the general treatment of curable types of upadaṃśa (19.25); elimination of the doṣas in upadaṃśa (19.26–27); the treatment of upadaṃśa due to vāta (19.28–30ab), pitta (19.30cd–33ab), and kapha (19.33cd–35); the surgical treatment of upadaṃśa (19.36–39); recipes for a powder (cūrṇa) (19.40–41), decoction (kvātha) (19.42–43), and oil (19.44–45ab); some more recipes (19.45cd–48ab); the treatment of the remaining two types of upadaṃśa, which cannot always be cured (19.48cd–49ab); the treatment of upadaṃśa caused by all three doṣas together (19.49cd–51); the treatment of ślīpada due to vāta (19.52–54), pitta (19.55), and kapha (19.56–59); recipes useful in ślīpada (19.60–69).<sup>179</sup>

Chapter twenty is devoted to the treatment of the kṣudrarogas.<sup>180</sup>

Its subjects are: the treatment of ajagallikā (20.3–4), andhālājī, yavaprakhyā, panaśī, kacchapī, and pāṣāṇagardabha (20.5–6); the treatment of vivṛtā, indravṛddhā, gardabhī, jālagardabha,<sup>181</sup> irivellī, gandhanāmnī, kakṣā, and visphotaka; these disorders should be treated in the same way as pittaja visarpa (20.7–8); the treatment of cippa (20.9–10); kunakha should be treated in the same way as cippa; anuśayī should be treated like vidradhi (an abscess) caused by kapha (20.11); the treatment of vidārikā (20.12–16); the treatment of śarkarārbuda, which is like that of arbuda due to medas; kacchū, vicarcikā and pāmā are to be treated like kuṣṭha; some beneficial pastes (lepa) and oils (20.17–19ab); the treatment of pādādārī (20.19cd–20), alasa (20.21–23ab), kadara (20.23cd), indralupta (20.24–27ab), arūṃsikā (20.27cd–29cd), and dāruṇaka (20.29ef–30); the treatment of palita will be described later (20.31ab);<sup>182</sup> masūrīkā should be treated like kuṣṭha or visarpa caused by pitta and kapha (20.31cd–32ab);<sup>183</sup> the treatment of jātumaṇi, maṣaka and tilakālaka (20.32cd–33ab), nyaccha, vyaṅga and nīlikā (20.33cd–36), yauvanapīṭakās<sup>184</sup> (20.37–38ab), padmīnīkaṇṭaka (20.38cd–39), parivṛtī,<sup>185</sup> avapāṭikā (20.40–42), and niruddhaprakāśa (20.43–46ab); saṃniruddhaguda, valmīka and vahnīrohiṇī (= agnīrohiṇī) should be treated without expecting full recovery; agnīrohiṇī should be treated on the same lines as visarpa, saṃniruddhaguda on the same lines as niruddhaprakāśa (20.46cd–48ab); the treatment of valmīka (20.48cd–55); characteristics of valmūka making it not amenable to treatment (20.56); the treatment of ahipūtanā (20.57–60ab);<sup>186</sup> muṣkakacchū<sup>187</sup> should be treated like ahipūtanā and pāmā (20.60cd); the treatment of gudabhraṃśa (20.61–63).

Chapter twenty-one is devoted to the treatment of śūkadoṣa.<sup>188</sup>

It deals with the following subjects: the treatment of sarṣapī (21.3), aṣṭhīlikā (21.4), grathita (21.5), kumbhīkā (21.6), alajī (21.7), mṛdita (21.8), saṃmūḍhapīṭakā (21.9), avamantha (21.10), puṣkarikā (21.11), sparśahāni (21.12), uttamā (21.13), and śataponaka (21.14); tvakpāka should be treated like visarpa, ṣoṇitārbuda (= raktārbuda) like vidradhi due to blood (21.15); some useful recipes in these conditions (21.16–17); arbuda (= māṃsārbuda), māṃsapāka, vidradhi and tilakālaka should properly be treated without giving hope of full recovery (21.18).

Chapter twenty-two is devoted to the treatment of diseases of the mouth, oral cavity and throat (mukharoga).<sup>189</sup>

It deals with the following subjects: the treatment of curable diseases of the lips: oṣṭhakopa due to vāta (22.3–5), pitta, blood, a trauma (22.6), kapha (22.7–8), or medas (22.9); the treatment of the diseases of the roots of the teeth and the gums:<sup>190</sup> śītāda (22.11–12),<sup>191</sup> dantapuppuṭaka (22.13–14ab),<sup>192</sup> dantaveṣṭa (22.14cd–16ab),<sup>193</sup> śauśira (22.16cd–18ab),<sup>194</sup> paridara (22.18cd), upakuśa (22.19–21),<sup>195</sup> dantavaidarbha (22.22),<sup>196</sup> adhikadanta (22.23),<sup>197</sup> adhimāṃsa (22.24–25),<sup>198</sup> and dantanāḍī (dental sinuses) (22.26–33ab);<sup>199</sup> the extraction of teeth<sup>200</sup> from the lower jaw (22.27); the extraction of teeth from the upper jaw (22.29cd–31ab);<sup>201</sup> the treatment of curable diseases of the teeth: dantaharṣa (22.34–36ab),<sup>202</sup> dantaśarkarā (22.36cd–37),<sup>203</sup> kapā-

likā (22.38ab),<sup>204</sup> kṛmidantaka<sup>205</sup> (22.38cd–41ab),<sup>206</sup> and hanumokṣa; hanumokṣa requires the same measures as ardita (22.41cd);<sup>207</sup> dietary rules for patients with dental diseases (22.42); the treatment of curable diseases of the tongue: kaṇṭaka due to vāta (22.44), pitta (22.45), and kapha (22.46–47), upajihvā (22.48); the treatment of diseases of the palate, beginning with galaśuṇḍikā (22.49cd–56); tuṇḍikerī, adhrūsa, kūrma,<sup>208</sup> māṃsasamghāta and tāluppuṭa are to be treated like galaśuṇḍikā, in particular with the surgical measures described with regard to that disease (22.57); the treatment of tālupāka and tāluśoṣa (22.58); the treatment of diseases of the throat: rohiṇī in general, rohiṇī due to vāta, pitta, kapha (22.59cd–64ab), kaṇṭhaśālūka (22.64cd–65ab), adhijihvikā, to be treated in the same way as upajihvikā (22.65cd), ekavṛnda (22.66ab), gilāyu (22.66cd), and galavidradhi (22.67ab); the treatment of sarvasara caused by vāta (22.67cd–68); a recipe for a dhūma (fumigation) useful in sarvasara (22.69–71); the treatment of sarvasara caused by pitta (22.72) and kapha (22.73–75); some prescriptions against sarvasara (22.76); the enumeration of the nineteen incurable mukharogas, which may be treated after giving due warning that full recovery cannot be expected; these diseases are: oṣṭhaprakopa (inflammation of the lips) due to māṃsa, blood and all the three doṣas together; sinuses (gati) of the gums (dantamūla) due to the three doṣas, and śauśira; the diseases of the teeth called śyāva(dantaka), dālana and bhañjana; the tongue disease called alasa; the disease of the palate called arbuda; the throat diseases called svaraghna, valaya, vṛnda, vidārī, alasa, galaugha, māṃsatāna, śataghnī, and rohiṇī (22.77–81).

Chapter twenty-three is devoted to the treatment of swellings (śoṣa).<sup>209</sup>

It deals with the following subjects: the local (avayavasamuttha) swellings, which are of six types, have already been described, together with their symptoms and treatment;<sup>210</sup> generalized (sarvasara) swelling<sup>211</sup> is of five types: caused by vāta, pitta, kapha, concerted action of the doṣas, and poisons (23.3); the aetiology of this disorder (23.4); the symptoms and characteristic features of śvayathu (= śoṣa) due to vāta, pitta, kapha, and concerted action; the poisonous substances causing the fifth type, its symptoms and characteristic features (23.5); doṣas staying in the āmāśaya give rise to swelling of the upper part of the body, those staying in the pakvāśaya of the middle part, those staying in the faecal receptacle (varcaṣṭhāna) of the lower part; a generalized (sarvasara) swelling arises when the doṣas have pervaded the whole body (23.6–7ab); swelling of the middle part and of the whole body is curable with difficulty; swelling of one half of the body and swelling which spreads upwards indicate that death is approaching (ariṣṭabhūta); other symptoms pointing to a fatal outcome (23.7cd–9ab); articles of diet to be avoided by a patient with swelling (23.10); the treatment of swelling due to vāta, pitta, kapha, and concerted action; swelling caused by poisonous substances will be dealt with in the Kalpasthāna (23.11); the general treatment of swelling (23.12); rules concerning diet and behaviour which are beneficial in cases of swelling (23.13).

Chapter twenty-four, called anāgatābādhāpratiṣedha, is concerned with the prevention of diseases.<sup>212</sup>

The chapter begins with rules for the daily regimen (24.3). Subjects dealt with are: rules for cleansing the teeth (dantapavana) (24.4–10ab);<sup>213</sup> contra-indications for cleansing the teeth (24.10cd–12); the tongue-scraper (jihvānirlekhaṇa) (24.13);<sup>214</sup> the beneficial effects of using a gargle (gaṇḍūṣa) (24.14);<sup>215</sup> the beneficial effects of washing (prakṣāḷana) face and eyes (24.15–17); the beneficial effects of the daily use of a collyrium (añjana), in particular srotoṇjana, produced in the Sindhu (region) (24.18–19);<sup>216</sup> contra-indications for the use of a collyrium (24.20); the beneficial effects of chewing betel leaves (24.21–23);<sup>217</sup> contra-indications for the use of betel leaves (24.24); anointing (abhyaṅga) of the head (24.25–26);<sup>218</sup> a recipe for an oil to be employed in anointing the head (24.27–28); combing the hair (keśaprasādhani) (24.29ab); pouring oil into the ears (karnapūraṇa) (24.29cd);<sup>219</sup> anointing (abhyaṅga) of the whole body (with oil) (24.30);<sup>220</sup> affusion of water upon the body (seka)<sup>221</sup> (24.31–34); contra-indications for anointing the body (24.35–37); the beneficial effects of physical exercise (24.38–47ab);<sup>222</sup> complications due to excessive physical exercise (24.49cd–50ab);<sup>223</sup> contra-indications for physical exercise (24.50cd–51ab);<sup>224</sup> the beneficial affects of udvartana (24.51cd–52ab), udgharṣaṇa and utsādana (24.52cd–56);<sup>225</sup> bathing (snāna) (24.57–61);<sup>226</sup> contra-indications for bathing (24.62); inunction (anulepana) (24.63–64ab); the beneficial effects of wearing flowers, (clean) clothes, and gems (24.64cd–65ab);<sup>227</sup> anointing of the face (mukhālepa) (24.65cd–66ab); the application of a collyrium (añjana) (24.66cd–67ab);<sup>228</sup> the beneficial effects of paying homage to gods, guests, and brāhmaṇas (24.67cd–68ab); the importance of food (24.68cd–69ab); washing of the feet (pādaprakṣāḷana) (24.69cd–70ab);<sup>229</sup> massage of the feet (pādābhyāṅga) (24.70cd–71ab);<sup>230</sup> the use of footwear (pādatradhāraṇa) (24.71cd–73ab);<sup>231</sup> haircutting, nail-paring, shaving (keśanakharonāpamārjana);<sup>232</sup> the wearing of armour (bāṇavāra) (24.73cd–74); the beneficial effects of wearing a head covering (uṣṇīṣa)<sup>233</sup> (24.75ab), using an umbrella or parasol (chattrā) (24.75cd–76ab),<sup>234</sup> and a stick (daṇḍa) (24.76cd–78ab);<sup>235</sup> the importance of sitting comfortably (āsyā), the habit of regular walking (adhvan, caṅkramaṇa) (24.78cd–80), sleeping comfortably (24.81), and using a fan (vyājana) (24.82); gentle massage (saṃvāhana) (24.83); the effects of various winds (24.84–85), the heat of the sun (24.86), and the heat of a fire (24.87); the importance of sleeping at an appropriate time (24.88); various rules of conduct (24.89–101);<sup>236</sup> some rules concerning seasonal regimen (24.102–109); the importance of not diverting one's attention when answering nature's calls, etc. (24.110); rules concerning sexual intercourse (24.111–114ab); undesirable sexual activities (24.114cd–130ab); conditions making sexual intercourse desirable and salutary (24.130cd–132).

Chapter twenty-five is devoted to the treatment of miscellaneous disorders (miśraḥka).

It deals with the following subjects: the diseases of the earlobes (pālyāmaya) may, as already stated, be treated by means of bloodletting; these diseases, five in number, are: paripoṭa, utpāta, unmantha, duḥkhavardhana, and parilehin (25.3–4ab); the causes of these diseases and their characteristics (25.4cd–11); the sequelae of neglecting these diseases (25.12); general treatment (25.13); the specific treatment of each of these diseases (25.14–23); the preparation of a medicated oil making the earlobes healthy, soft,

smooth, and capable of bearing ornaments (25.24–28ab); the preparation of nīlītāla, an oil arresting premature greying of the hair (palita)<sup>237</sup> (25.28cd–31); the preparation of sairīyakāditāla, which makes the hair thick, curly and black, which promotes the growth of new hair in cases of baldness (khalati), and prevents the premature onset of the signs of old age, such as wrinkles of the face (25.32–37); the preparation of lā-kṣādigṛīta, which cures vyaṅga, nīlikā and visphoṭakas of the face, removes wrinkles, gives beauty to the face, etc.; it should be prescribed to kings and ladies (25.38–42); a recipe for an ointment (lepa) imparting a beautiful complexion (aṅgarāga) (25.43).

Chapter twenty-six is devoted to the treatment with aphrodisiacs (vājīkaraṇacikitsita) of sexually weak (kṣīṇabalīya) males.

The subjects dealt with are: persons suitable to be treated with aphrodisiacs (26.3–5); various means of stimulating sexual desire (26.6–9cd);<sup>238</sup> types of impaired potency (klaibya): caused by psychological factors (mānasa), decrease of the saumya element(s) (saumyadhātukṣaya), decrease of semen (śukrakṣaya) due to sexual excesses, a disease of the penis or injury to a marman, and congenital (sahaja) factors (26.9ef–14);<sup>239</sup> the congenital type and that caused by injury to a marman are incurable; the other types can be cured by counteracting the causes (26.15);<sup>240</sup> aphrodisiac recipes (26.16–39).<sup>241</sup>

Chapter twenty-seven is devoted to measures, belonging to the realm of rasāyana,<sup>242</sup> which settle (śamanīya) all kinds of damage (sarvopaghāta) (to the human system).

The subjects dealt with are: rasāyana measures are always indicated in youthful and adult patients after oleation and purification (i.e., emesis and purgation), but should never be prescribed to those whose body has not previously been purified (27.3–4);<sup>243</sup> articles of diet useful in preserving a youthful appearance (27.5–6); five preparations, with vīḍaṅga seeds as their chief ingredient, which, when their daily ingestion is followed by the proper diet, increase the life expectancy (27.7);<sup>244</sup> another preparation with vīḍaṅga seeds, which, when taken in the proper way during a period of four months, rejuvenates old people and endows them with superhuman (amānuṣa) qualities (27.8); substitution of the vīḍaṅga seeds by dehusked (niṣkulīkṛta) seeds of kāśmārya gives, with some adjustments of the course of treatment, the same results; these recipes are also applicable in diseases caused by blood and pitta (27.9); preparations having similar rasāyana effects and useful in a number of diseases, with as chief ingredients the roots of balā,<sup>245</sup> atibalā,<sup>246</sup> nāgabalā,<sup>247</sup> vidārī, or śatāvārī (27.10); a rasāyana preparation with the rhizomes of vārāhī (27.11); a rasāyana preparation, specifically promoting eyesight, with the pith (sāra) of bījaka and the roots of agnimantha as its main ingredients (27.12); śaṇa fruits boiled in milk and taken with milk are effective in preserving youthful vigour (27.13).

Chapter twenty-eight is devoted to rasāyana measures which improve the mental faculties and impart longevity (medhāyuskāṁīyarasāyana).

Its subjects are: the preparation, instructions for use, and effects of a rasāyana with the seeds of the white avalguja (= bākucī); the roots of citraka or those of haridrā may

also be used, with an adjustment of the maximum dose (28.3); the preparation, etc., of a rasāyana with maṇḍūkapaṃī (28.4),<sup>248</sup> brāhmī (28.5–6),<sup>249</sup> and vacā (28.7);<sup>250</sup> the effects of a ghee, processed one hundred times with vacā (vacāśatapākasarpiḥ) (28.8); a series of rasāyana recipes; their preparation should be accompanied by the recitation of mantras (28.9–26); elements of behaviour which improve one's mental faculties (28.27) and confer longevity (28.28).<sup>251</sup>

Chapter twenty-nine<sup>252</sup> is devoted to rasāyana measures which aim at counteracting naturally occurring diseases (svabhāvavyādhi).<sup>253</sup>

Brahmā and the other gods created in the days of yore an amṛta known as soma, which prevents old age and death; the way of using it will now be expounded (29.3).<sup>254</sup>

This one and venerable soma is divided into twenty-four varieties according to their habitat, name, form and potency (29.4). Their names are: aṃśumant, muñjavant, candramas, rajataprabha, dūrvāsoma, kaniyas, śvetākṣa, kanakaprabha, pratānavant, tālavṇta, karavīra, aṃśavant, svayamprabha, mahāsoma, garuḍāhṛta, gāyatra, traiṣṭubha, pāṅkta, jāgata, śākhvara, agniṣṭoma, raivata, yathokta, and uḍupati; all these auspicious names are mentioned in the Vedas;<sup>255</sup> all the varieties enumerated have the same properties and are used in one and the same way, to be explained next (29.5–9).<sup>256</sup>

A very elaborate, long-lasting course of treatment, covering a total of four months, with soma of the aṃśumant variety, accompanied by many rituals, is described; complete rejuvenation and the acquisition of the eight aiśvaryas<sup>257</sup> are its result (29.10–13). The wonderful effects of the use of soma are eulogized (29.14–19).<sup>258</sup>

A soma plant grows one leaf on each of the fifteen days of the moon's increase and loses one leaf on each day of its waning (29.20–22). Some characteristics of the varieties of soma are mentioned. Aṃśumant smells like ghee,<sup>259</sup> rajataprabha has a tuberous root (kanda) like that of the plantain,<sup>260</sup> muñjavant possesses leaves like those of garlic,<sup>261</sup> candramas is of a golden colour and has an aquatic habitat,<sup>262</sup> garuḍāhṛta<sup>263</sup> and śvetākṣa<sup>264</sup> are pale (pāṇḍura) in colour, look like the cast-off skin of a snake, and are found pendent from the branches of trees; all the other varieties are decorated with variegated rings (29.23–25). All the varieties of soma have fifteen leaves and a tuber with a milky juice, are creeper-like in appearance, and possess leaves of various forms (29.26).

Habitats of soma<sup>265</sup> are the mountains Himavant, Arbuda, Sahya, Mahendra, Malaya, Śrīparvata, Devagiri and Devasaha, (the mountain ranges called) Pāriyātra and Vindhya, and the Devasunda lake. Candramas, the best variety, floats like (the plant called) haṭha on the water of the great river Sindhu, where it flows down at the foot of the five large mountains lying to the north of the Vitastā; muñjavant and aṃśumant are found in the same locality; the little Mānasa lake in Kāśmīr<sup>266</sup> is the place where gāyatra, traiṣṭubha, pāṅkta, jāgata and śākhvara occur, as well as other varieties of soma which glow like the moon (29.27–31).

The soma plants are invisible to those unfortunate persons who have no respect for physicians, who do not observe the dharma, are ungrateful, decry medicines, and dislike brāhmaṇas (29.32).

Chapter thirty is devoted to rasāyana measures which remove distress (nirvṛttsaṃtāpīya rasāyana).

Persons who can secure these (rasāyana) drugs become free from distress and enjoy the same happiness on earth as the gods in heaven (30.3). Seven groups of persons are unfit for this rasāyana treatment: those not self-possessed, lazy, indigent, negligent, vicious, wicked, and disregarding with respect to medicines; success cannot be reached in these persons due to their ignorance, inactivity, poverty, mental instability, intemperance, impiety, and inability to secure the (appropriate) drugs (30.4).<sup>267</sup>

The eighteen great drugs (mahaśadhi) with the same potency as soma are: ajagarī, śvetakāpotī, kṛṣṇakāpotī, gonasī, vārāhī, kanyā, chattrā, aticchattrā, kareṇu, ajā, cakrakā, ādityaparnī, brahmasuvarcalā, śrāvaṇī, mahāśrāvaṇī, golomī, ajaloinī, and mahāvegavati;<sup>268</sup> their mode of action, the accompanying rituals (śāsis),<sup>269</sup> and the praise (of their effects),<sup>270</sup> compared to those of soma, have been described in the (medical) scientific treatises (śāstra).

The parts of the plants fit for use are mentioned, the quantities of these parts to be taken, the preparation of the drug by boiling the plant parts with milk, the dose to be taken, and the regimen to be followed during the treatment; after completion of the course of treatment, the body should be anointed with butter (navanīta), and not with the substances described in the treatment with soma<sup>271</sup> (30.5).

The wonderful effects of the treatment are extolled (30.6–8).<sup>272</sup>

The morphological characteristics of each of the eighteen great drugs are enumerated (30.9–25).<sup>273</sup>

The first seven of the great drugs, which have the appearance of a snake, should be culled while reciting a particular mantra (30.26–28ab).

Soma and the drugs similar to it cannot be secured by those who are unbelievers, lazy, ungrateful, and wicked (30.28cd–29ab). Brahmā and the other gods placed the remnant of the amṛta, after they had drunk of it,<sup>274</sup> in the drugs with the potency of soma and in soma, the lord of the medicinal herbs (30.29cd–30ab).

The habitats of the great drugs and the proper seasons for their collection: brahmasuvarcalā grows in the waters of lake Devasunda and the river Sindhu; the same applies to ādityaparnī, ajagarī and gonasī; kareṇu, kanyā, chattrā, aticchattrā, golomī, ajalomi and mahāśrāvaṇī grow in a divine lake in Kāśmīr, called Kṣudrakamānasa (the little Mānasa); kṛṣṇasarpā (= vārāhī) and gonasī are found there too; śvetakāpotī grows on top of termite hills in a region covering three yojanas on the other side of the river Kauśiki<sup>275</sup> and to the east of Sañjayantī;<sup>276</sup> vegavati grows on the Malaya mountains and the Nalasetu<sup>277</sup> (30.30cd–36ab).

All these drugs should be taken, after a fast, on the full-moon day of the month of Kārttika; the rules concerning diet and behaviour, as well as the effects, are the same as those described for soma (30.36cd–37ab).

All these drugs, soma included, may be collected on the mountain Arbuda; this mountain is poetically described (30.37cd–39).

All (these drugs) should be searched for in auspicious locations, whether they be rivers, mountains, lakes, forests, or hermitages, since the world holds precious substances everywhere (30.40).

Chapter thirty-one is concerned with treatments by means of fatty substances (snehopayaugikacikitsita).<sup>278</sup>

The subjects dealt with are: fatty substances (sneha) are essential constituents of the human organism; the prāṇas abound in them; this makes the prāṇas manageable by means of these substances; fatty substances may be administered in drinks, enemas of the anuvāsana type, mastiṣkas,<sup>279</sup> śirobastis, uttarabastis, errhines, eardrops (karṇapūraṇa), massage oils, and articles of diet (31.3); fatty substances can be obtained from two sources<sup>280</sup> and are of four kinds;<sup>281</sup> ghee made from cow's milk is the best sneha from an animal source, sesamum oil the best from a vegetable source (31.4); many vegetable oils are mentioned, together with the disorders in which they are useful (31.5);<sup>282</sup> the description of the way in which, according to some authorities, a medicated sneha should be prepared; the rejection of this method on account of the wrong system of weights and measures applied (31.6); the approved system of weights and measures (31.7);<sup>283</sup> two methods for preparing a decoction, and, with this decoction as a basic ingredient, a sneha (31.8); some general rules: these methods of snehapāka should be followed when the quantities of sneha, drug and water are not specified; in case these quantities are mentioned, the instructions should be complied with; water should be used when no particular liquid is referred to; when no specific drug is prescribed, one should take the group of drugs (gaṇa) concerned (31.9–10);<sup>284</sup> snehapāka is of three types: mṛdu (mild), madhyama (medium), and firm (khara); the characteristics and the uses of these types are described (31.11);<sup>285</sup> the characteristics indicating that the process of preparing a medicated ghee or oil is completed (31.12–13); the way in which a patient should take a medicated ghee or oil (31.14);<sup>286</sup> indications for a medicated ghee (31.15),<sup>287</sup> oil (31.16),<sup>288</sup> vāsā (31.17)<sup>289</sup> and bone marrow,<sup>290</sup> or ghee (31.18); ghee alone, without the addition of any other substance, should be prescribed in diseases caused by pitta, ghee mixed with salt<sup>291</sup> in vāta diseases, ghee mixed with vyoṣa<sup>292</sup> in kapha diseases (31.19); the sixty-three tastes, singly or combined, should be used in snehas, keeping in view the degree of involvement of the doṣas and their combinations (31.20);<sup>293</sup> rules concerning the taking of a sneha by day or at night and in the various seasons (31.21–22);<sup>294</sup> disorders resulting from the non-observation of these rules (31.23);<sup>295</sup> the treatment of thirst after drinking a sneha (31.24–25ab);<sup>296</sup> dosage schedules for a sneha, their effects and indications; these dosages are connected with the time required for their digestion (31.25cd–31ab);<sup>297</sup> the treatment of improper use or an over-dosage<sup>298</sup> by making a patient vomit the sneha<sup>299</sup> (31.31cd–32ab); the repetition of the procedure, if necessary, in such a patient and his after-treatment (31.32cd–35); the duration of the treatment with a sneha; the maximum is a period of six days (31.36);<sup>300</sup> indications for taking a sneha together with food (31.37);<sup>301</sup> methods of snehana which give results in a short time (sadyaḥsnehana) (31.38–44); indications for sadyaḥsnehana (31.45); contra-indications for treatment with a sneha (31.46–51ab);<sup>302</sup> indications for treatment with a sneha (31.51cd–52);<sup>303</sup> signs indicating proper treatment (31.53)<sup>304</sup> and excessive treatment (31.54);<sup>305</sup> the management of those inadequately or excessively treated (31.55); the beneficial effects of a sneha in health and disease (31.56–57).



Chapter thirty-two is devoted to treatment by means of sudation (svedāvacāraṇī-yacikitsita).<sup>306</sup>

It deals with the following subjects: the four types of sudation: application of direct heat (tāpasveda),<sup>307</sup> direct and indirect heat (ūṣmasveda),<sup>308</sup> poultices (upanāhasveda), and liquids (dravasveda);<sup>309</sup> a description of various types of tāpasveda (32.4) and ūṣmasveda (32.5–9);<sup>310</sup> some more types of ūṣmasveda (32.10–11);<sup>311</sup> poultices (32.12);<sup>312</sup> dravasveda (32.13);<sup>313</sup> tāpa- and ūṣmasveda are indicated in kapha diseases, poultices cure vāta diseases, dravasveda is useful in combinations of pitta with kapha or vāta (32.14); when vāta is associated with kapha and medas, sudation may be achieved by remaining in a place free from draughts (nivāta), by exposure to the sun, by warm clothes, wrestling (niyuddha), walking, physical exercise, load-carrying, and arousing anger (32.15);<sup>314</sup> the described types of sudation may be applied to the whole body or part of it (32.16);<sup>315</sup> indications for sudation (32.17–19);<sup>316</sup> massage with oil (abhyāṅga) and oleation (sneha) should always precede sudation (32.20);<sup>317</sup> the mode of action of sudation (32.21); characteristic features of proper, improper and excessive sudation (32.22–24);<sup>318</sup> contra-indications for sudation (32.25);<sup>319</sup> mild sudation, including the cardiac region, scrotum and eyes, is advisable in patients with diseases curable by this method, even in the presence of contra-indications (32.26);<sup>320</sup> general rules for sudation (32.27–28ab);<sup>321</sup> rules for after-treatment (32.28cd–29).<sup>322</sup>

Chapter thirty-three is devoted to the treatment of disorders curable by means of emetics and purgatives (vamanavirecanasādhypadravacikitsita).

The subjects dealt with are: the doṣas should be strengthened when decreased, pacified when excited, eliminated when increased, and protected when in balance (33.3);<sup>323</sup> emesis and purgation are mainly employed for elimination (nirharāṇa) of the doṣas (33.4); the preliminary treatment, prior to emesis, with oleation and sudation, will lead to dislodgment (utkleśa) of doṣas which have got stuck (avabaddha) (33.5–6);<sup>324</sup> the procedures to be adopted in emesis (33.7);<sup>325</sup> signs indicating a deficient and excessive administration of emetics (33.8);<sup>326</sup> the signs of proper emesis (33.9);<sup>327</sup> after-treatment (33.10–11);<sup>328</sup> the beneficial effects of emesis (33.12–13); contra-indications for emesis (33.14–17);<sup>329</sup> indications for emesis (33.18);<sup>330</sup> the preparation of a patient for purgative treatment (33.19–20);<sup>331</sup> the three types of koṣṭha (bowel activity): mṛdu (soft), krūra (hard) and madhyama (moderate), to be treated with weak, strong and moderate dosages of purgative drugs (33.21);<sup>332</sup> after-treatment (33.22); the mode of action of purgatives (33.23); signs indicating a deficient and excessive administration (33.24);<sup>333</sup> the signs of proper purgation (33.25);<sup>334</sup> dietary rules after purgation (33.26);<sup>335</sup> the beneficial effects of purgation (33.27–28);<sup>336</sup> contra-indications (33.29–31);<sup>337</sup> indications for purgative treatment (33.32);<sup>338</sup> specific properties and actions of emetics and purgatives (33.33–34); rules for purgation in various types of patients (33.35–46); doṣas in the koṣṭha are dislodged by oleation and sudation and can then easily be eliminated by purificatory measures (33.47).

Chapter thirty-four (vamanavirecanavyāpaccikitsita) is concerned with the treatment of disorders (vyāpad) caused by (the injudicious administration of) emetics and

purgatives.<sup>339</sup>

The subjects dealt with are: the fifteen disorders caused by (injudiciousness of) physician or patient; passing downwards (adhogati) of emetics and passing upwards (ūrdhvagati) of purgatives are the kinds of vyāpad peculiar to these types of treatment; the remaining fourteen are common to emetic and purgative treatments; these disorders are: retention of part of the administered drug (sāvaśeṣauśadhatva), complete digestion of the drug (jīrṇauśadhatva), insufficient elimination of the doṣa(s) (hīna-doṣāpahṛtva), piercing pain due to vāta (vātaśūla), underdosage (ayoga), overdosage (atiyoga), jivādāna (bleeding), tympanitis (ādhmāna), parikartikā, parisrāva, pravāhikā, hṛdayopasarāṇa, constipation (vibandha), and aṅgapragraha (34.3);<sup>340</sup> adhogati and its treatment (34.4);<sup>341</sup> ūrdhvagati and its treatment (34.5);<sup>342</sup> sāvaśeṣauśadhatva, its symptoms and treatment (34.6);<sup>343</sup> jīrṇauśadhatva, its symptoms and treatment (34.7);<sup>344</sup> hīna-doṣāpahṛtva after the treatment with emetics and purgatives; the treatment of this untoward condition (34.8);<sup>345</sup> vātaśūla, its causes, symptoms and treatment (34.9);<sup>346</sup> ayoga and its treatment (34.10);<sup>347</sup> atiyoga of emetics and purgatives, the symptoms and treatment of the disorders resulting from it;<sup>348</sup> jivādāna<sup>349</sup> (loss of fresh blood by way of the mouth or anus) (34.11–13); the differences between jīvaśonita (fresh blood) and raktapitta (34.14);<sup>350</sup> the causes, symptoms and treatment of tympanitis (34.15),<sup>351</sup> parikartikā (34.16),<sup>352</sup> parisrāva (34.17),<sup>353</sup> pravāhikā (34.18),<sup>354</sup> hṛdayopasarāṇa (34.19),<sup>355</sup> and vibandha (34.20);<sup>356</sup> gudaparikartikā (a cutting pain in the anal region) as a disorder caused by purgatives is an equivalent of kaṇṭhliakṣaraṇa<sup>357</sup> after inadequate treatment with emetics; parisrāvaṇa and pravāhikā after improper application of purgatives are equivalents of an abundant secretion of saliva (śleṣmapraseka) and dry eructations (śuṣkodgāra) after improper emesis.

Chapter thirty-five is concerned with the dimensions (of the component parts) of a clyster and the types of enemas (netrabastipramāṇaprabhāga). Related topics are added.

The subjects dealt with are: the importance of enemas and their general effects (35.3–4);<sup>358</sup> indications for enema treatment (35.5–6);<sup>359</sup> specifications for the dimensions of the clyster-pipe (netra) and the karnikā;<sup>360</sup> the quantity of the drugs for an āsthāpana enema should be two, four or eight prasṛta, dependent on the age of the patient; a prasṛta is in this case the quantity equal to what the hollow of the patient's own hand can contain<sup>361</sup> (35.7); the measurements of pipe and bag vary according to the age of the patient, his strength and his bodily make-up (35.8); specifications for the dimensions of the pipe in patients more than twenty-five years of age; the pipe should possess two karnikās in these cases; the quantity of the drugs should be twelve prasṛta; the requirements for patients above seventy years of age are the same, but the quantity of the fluid should be as that for a youth of sixteen (35.9);<sup>362</sup> a mild enema should be used in children and elderly patients, because a strong one would be harmful (35.10); the appropriate length of a vṛṇanetra<sup>363</sup> and the width of its aperture (35.11); suitable materials for the pipe of a clyster,<sup>364</sup> its form, and its opening (35.12); the most suitable material for the clyster bag; the properties it should have (35.13);<sup>365</sup> substitutes for the materials for pipe and bag (35.14);<sup>366</sup> requirements for the bag, its preparation,

and the putting together of the complete instrument (35.15–17); the two types of enema: *nairūhika* (non-oleaginous) and *snaihika* (oleaginous); *āsthāpana* and *nirūha* are synonyms; a *mādhutailika* enema is a variety of *āsthāpana* and is also called *yāpana*,<sup>367</sup> *yuktaratha* and *siddhabasti*;<sup>368</sup> the explanation of the terms *nirūha* and *āsthāpana*; the *mādhutailikabasti* will be described in the chapter on *nirūha*;<sup>369</sup> an *anuvāsana* enema is a variety of oleaginous enema (*snehabasti*) with a reduced quantity of fluid;<sup>370</sup> it does no harm when retained within the bowels and may be administered daily; the subvariety of *anuvāsana* called *mātrābasti*<sup>371</sup> contains one quarter of the fluid used in an *anuvāsana* enema (35.18); the modes of action of *nirūha* and *snehabasti* (35.19–20); contraindications for an *anuvāsana* enema (35.21–23);<sup>372</sup> the effects of properly administered enemas (35.24–31); the six types of defective handling of the clyster pipe (*praṇidhānaḥ*);<sup>373</sup> the eleven defects of the pipe (*netraḥ*);<sup>374</sup> the five defects of the bag;<sup>375</sup> the four types of improper squeezing of the bag (*pīḍanaḥ*);<sup>376</sup> the eleven undesirable qualities of the fluid used; the seven inappropriate postures of the patient (*śayyādoṣa*); these forty-four defects (*vyāpad*) are due to the physician; the fifteen defects which are due to the patient will be described in the *āturopadravacikitsita* chapter;<sup>377</sup> the oleaginous vehiculum of an enema may be retained without coming out again due to eight causes:<sup>378</sup> the three *doṣa*s are overwhelmed by ingested food, the fluid has got mixed with faecal matter, has been administered too high up into the rectum, has been administered without prior sudation, is too cold, has been administered to a patient who has taken (too) little food, or has been administered in (too) small a quantity;<sup>379</sup> these conditions are the fault of both physician and patient; nine disorders arise due to faults of the practitioner: defective administration of both (*anuvāsana* and *āsthāpana*), *tympanitis* (*ādhmāna*), *parikartikā*, *parisāra*, *pravāhikā*, *hrdayopasaraṇa*, *aṅgapragraha*, over-dosage, and *jīvādāna* (35.32); thus seventy-six disorders due to defects (*vyāpad*) have been described; (signs leading to their ) knowledge and their cure (*siddhi*) will be dealt with in the next chapter (35.33).

Chapter thirty-six is devoted to the treatment of disorders due to the improper application of the pipe, etc., in the administration of an enema (*netrabastiyvāpaccikitsita*).<sup>380</sup>

The subjects dealt with are: disorders due to defects of the pipe and its inadequate handling; the treatment of these disorders (36.3–10ab);<sup>381</sup> disorders due to defects of the bag, its improper pressing, and allowing the fluid to remain inside longer than the proper period; the treatment of these disorders (36.10cd–16);<sup>382</sup> disorders due to shortcomings of the enema fluid; the treatment of these disorders (36.17–22); disorders caused by a wrong positioning of the patient; their treatment (36.23–30ab); disorders due to the nine defects of the enema itself; the treatment of these disorders (36.30cd–48);<sup>383</sup> these nine defects of a *nirūha* (non-oleaginous enema) may also occur in a *snehabasti* (36.49); thus all the disorders caused by improper application (*vyāpad*) of enemas have been described, along with their treatment; the physician should proceed in such a way that they do not occur (36.50); a patient should be purged for a fortnight after his treatment with emetics; a *nirūha* should be administered seven days after the purgative treatment; it should be followed that very day by an *anuvāsana* enema (36.51).<sup>384</sup>

Chapter thirty-seven is devoted to the treatment with anuvāsana (an oleaginous enema) and uttarabasti.

The subjects dealt with in the first part are: an anuvāsana may be administered seven days after a treatment with purgatives, when the patient has recovered his strength and his normal diet (37.3); the dosage of a snehabasti (oleaginous enema) is one-fourth (pādāvakṛṣṭa) of that for a nirūha (37.4);<sup>385</sup> an enema should always be given only after the patient has passed urine, stool and flatus, for it would be obstructed otherwise (37.5); a snehabasti should always be preceded by emesis and purgation (37.6); (ten) recipes for medicated oils which are, as drinks, in an anuvāsana,<sup>386</sup> or as an errhine, active against many diseases (37.7–42); special indications and precautions concerning the treatment with anuvāsana enemas (37.43–57); the correct procedure for the administration of an anuvāsana (37.58–63);<sup>387</sup> the treatment of problems that may arise: the enema fluid is not retained for a sufficiently long time, comes out at once, etc. (37.64–69); courses of treatment with enemas:<sup>388</sup> a course of six, seven, eight, or nine snehabastis may be given, alternating with the administration of a nirūha; the first oleaginous enema lubricates the bladder and the groins, the second subdues vāta located in the head, the third bestows strength and enhances the complexion, the fourth to ninth oleate rasa, blood, muscular tissue, fatty tissue, bones, and bone marrow in the mentioned order; applied twice in this way, the whole series of eighteen enemas cures disorders of the semen (37.70–74); those taking eighteen times such a course of eighteen enemas, while observing the rules and prohibitions, acquires the strength of an elephant, the speed of a horse, a divine beauty, freedom from sins, an excellent memory, and a life span of thousand years (37.75–76); snehabastis or nirūhas should not be used exclusively, but in alternation, because the snehabastis would destroy the digestive fire and cause utkleṣa (due to kapha), while the nirūhas would provoke vāta (37.77–78);<sup>389</sup> a snehabasti may be administered daily to patients with much vāta,<sup>390</sup> but to others only every third day,<sup>391</sup> for fear of damage to the digestive fire; small quantities of a snehabasti during a long time are not harmful to dry (rūkṣa) patients;<sup>392</sup> the same applies to the use of a nirūha in patients who have been oleated (snigdha) (37.79–80); the treatment of the conditions, due to eight causes, in which a snehabasti is retained, does not come out at all, or leaks out slowly (37.81–100ab).<sup>393</sup>

The subjects dealt with in the second part, on uttarabasti (urethral and vaginal irrigations), are: the length of the pipe (netra): fourteen aṅgula, to be measured by the patient's own fingers;<sup>394</sup> the shape of its proximal end; the width of its aperture (37.100cd–101);<sup>395</sup> the maximum dose of an oleaginous substance is one prakūñca;<sup>396</sup> the appropriate dose for persons below twenty-five years of age should be determined by the physician (37.102);<sup>397</sup> the place of the kaṇṭhikā (protrusion) on the pipe for males and females (37.103ab);<sup>398</sup> the lumen should agree with that of the urethra (mūtrasrotas) and it should be ten aṅgula long (37.103cd);<sup>399</sup> some require its length to be the same as that of the penis (37.104ab);<sup>400</sup> the extent to which the pipe should be introduced into the vagina (apatyamārga) or urethra (mūtramārga) (37.104cd–105);<sup>401</sup> the maximum dose (in females)<sup>402</sup> is a prasṛta, i.e., the quantity that the hollow of the patient's own hand can contain;<sup>403</sup> smaller doses should be fixed by the physician for

young patients or as the case may require (37.106); suitable materials for the bag and their substitutes (37.107–108ab);<sup>404</sup> the preparation of the patient and his positioning (37.108cd–109);<sup>405</sup> the mode of administration of an uttarabasti to a male patient; the after-treatment (37.110–113);<sup>406</sup> three or four bastis should be given (37.114ab); the positioning of a female patient; the mode of administration (37.114cd–115);<sup>407</sup> the quantity of the sneha should be doubled for purification of the uterus (37.116ab); the quantity of the decoction (kvātha) to be used should be one prasṛta for a male patient, two prasṛta for an adult female patient, and one prasṛta for an unmarried girl (37.116cd–117ab); when the uttarabasti is retained, the treatment should be repeated, with the addition of purificatory drugs (37.117cd–118ab), or a suppository (varti) should be introduced through the anus, prepared with purificatory drugs, or a probe (eṣaṇī) should be introduced through the opening of the bladder (bastidvāra), or the region below the navel should firmly be pressed with the upper part of the closed fist (uttaramuṣṭi) (37.118cd–119), or a particular varti, of a size appropriate to the age of the patient, should be introduced<sup>408</sup> by means of a śālākā, thus making the retained fluid come out (37.120–121); another varti may also be successful (37.122);<sup>409</sup> the measures described for the successful application of anuvāsana enemas may be adopted too (37.123ab); prescriptions against a burning sensation in the bladder (37.123cd–124); indications for the application of uttarabasti (37.125–126); the signs of proper application of an uttarabasti, the disorders resulting from an injudicious application, and the treatment of these disorders are the same as those of a snehabasti (37.127).<sup>410</sup>

Chapter thirty-eight is devoted to the treatment with nirūha (a non-oleaginous enema).

The subjects dealt with are: an āsthāpana (= nirūha) should be administered to patients who have already been treated with an anuvāsana; the preparation of the patient and his positioning; the preparation of the clyster and its mode of application;<sup>411</sup> the enema should come out again within a muhūrta; a second, third, or fourth enema may be administered, as the case requires;<sup>412</sup> the treatment should be discontinued when the signs of proper application appear (38.3–7ab); a smaller number of enemas may be preferable in delicate persons; an excess should always be avoided (38.7cd–8ab); the signs of inadequate, excessive and proper treatment with a nirūha (38.8cd–11ab); after-treatment (38.11cd–17ab); the treatment required when the enema does not come out within a muhūrta (38.17cd–18ab); the disorders arising when the enema is retained for a long time (38.18cd–19ab); contra-indications for nirūha treatment (38.19cd–23);<sup>413</sup> substances and drugs suitable for a nirūha (38.24–28); the preparation of the nirūha fluid (38.29–36); the preparation of the dvādaśaprasṛta nirūha; the maximum dose of twelve (dvādaśa) prasṛta may be reduced according to the age of the patient (38.37–41);<sup>414</sup> recipes for a long series of enemas, their indications and effects (38.42–89);<sup>415</sup> patients with a high degree of sattva should be given a strong (tīkṣṇa) enema, those with a moderate or low degree of sattva a moderate or mild enema (38.90); a physician should administer an enema after assessing the period of time, the patient's strength, the doṣa(s) involved, the disorder, and the strength of the drugs in the enema fluid (38.91); a physician should give first a n enema that makes the doṣas move (utkleśana), then one

that eliminates them (doṣahara), and finally one that pacifies (saṃśamaṇīya) them (38.92); recipes for these three kinds of enema (38.93–95); the effects of a mādhubailika enema; persons suitable for treatment with it; the way of its preparation (38.96–101);<sup>416</sup> the recipe of a yuktaratha enema (38.102);<sup>417</sup> the recipe of a doṣahara enema (38.103); the recipe of an enema called pāñcamūlika mādhubailika (38.104); the recipe of a siddhabasti (38.105);<sup>418</sup> the preparation and effects of an enema called the king among the yāpana enemas (38.106–111);<sup>419</sup> general rules concerning the treatment with enemas (38.112–113); explanations of the terms mādhubailika, yuktaratha, and siddhabasti (38.114–116); indications for the treatment with a mādhubailika enema (38.117); the siddhabasti is mild; it should be administered once in a small dose, and may be used without observing all the rules (38.118).

Chapter thirty-nine is concerned with the treatment of side effects (upadrava).

The subjects dealt with are: oleation, emesis, purgation, bloodletting, and the treatment with nirūha enemas may lead to weakness of the digestive fire (kāyāgni); this fire also loses strength by an excess of heavy articles of diet; it is stimulated by light articles of diet in small quantities (39.3–5); the quantity of one's diet should always be adapted to the quantity of eliminated doṣas; the measures (used with regard to the eliminated doṣas) are a prastha,<sup>420</sup> half an āḍhaka, and an āḍhaka,<sup>421</sup> which are the smallest, the intermediate, and the largest quantity respectively (39.6–7ab); dietary rules for particular groups of patients after undergoing eliminative treatment (39.7cd–15ab); the rule with respect to the quantity of eliminated doṣas, measured as a prastha, half an āḍhaka or an āḍhaka, is rejected by some experts, who hold the opinion that a treatment with purgatives should always end with the passage of mucous discharges (39.15cd–16); a patient's strength (bala) is of three degrees; accordingly, three types of dietary regimen are distinguished; a strong patient should observe the regimen once, one of moderate strength twice, a weak patient thrice; others are of the opinion that this rule regarding regimen applies to patients with a sluggish, moderate or strong digestive fire (39.17–18); the recommended order of the tastes of the articles of food in the meals of patients with an increased digestive fire after observing a particular regimen; the gradual transition to a normal diet (39.19–20); after oleation or emesis, a patient should take light food only for seven days (39.21); things to be avoided during and after elimination therapy (39.22–25); disorders arising from sexual intercourse during treatment (39.26–27); disorders arising from day-sleep (39.28–29), loud speaking, and other excesses (39.30–38); light articles of diet which are beneficial after treatment with emetics and purgatives (39.39).

Chapter forty is devoted to treatment by means of fumigations and smoking (dhūma), errhines (nasya), and gargles (kavalagraha).

The subjects dealt with are: the five types of fumigation and smoking: prāyogika (for regular use in the healthy), snaihika (oleaginous), vaiṛecanika (evacuative), kāśaghna (antitussive), and vāmaṇīya (emetic) (40.3);<sup>422</sup> the preparation of the wick (varti) for these fumigations; the materials and drugs to be employed (40.4);<sup>423</sup> the materials for the pipe (dhūmanetra) for fumigation and smoking; the measurements of

the pipe, dependent on the type of fumigation;<sup>424</sup> the *vraṇanetra* (used for fumigating a sore), its length and girth, the width of the orifice (40.5); the ways of inhaling and exhaling the smoke through mouth and nose, dependent on the type of fumigation (40.6–9);<sup>425</sup> special rules regarding the wick in the various types of fumigation (40.10); contra-indications for fumigation and smoking (40.11);<sup>426</sup> disorders resulting from smoking at improper hours (40.12);<sup>427</sup> the twelve occasions on which the first three types of inhaling smoke may be practised; the occasions most suitable to the use of the *snaihika*, *vairecanika* and *prāyogika* types (40.13);<sup>428</sup> the effects on the *doṣas* of these three types (40.14); the beneficial effects of fumigation and smoking (40.15);<sup>429</sup> the disorders warded off (40.16);<sup>430</sup> the features of adequate, inadequate and excessive application (40.17);<sup>431</sup> rules regarding the number of times the smoke should be inhaled in the *prāyogika* type; the treatment with the *snaihika* type should be continued until tears begin to flow, the *vairecanika* type until the *doṣas* are eliminated; rules regarding the *vāmanīya* and *kāsaghna* types (40.18);<sup>432</sup> the fumigation of sores (40.19); an *errhine* (*nasya*) is a (powdered) drug or a medicated fatty substance (*sneha*), administered through the nostrils; it is of two main types: *śirovirecana* (evacuating with regard to the head) and *snehana* (oleating); five varieties are distinguished: *nasya*, *śirovirecana*, *pratimarśa*, *avapīḍa*, and *pradhamaṇa*; *nasya* and *śirovirecana* are the most important varieties; *pratimarśa* is a special form of *nasya*; *avapīḍa* and *pradhamaṇa* are special forms of *śirovirecana*; the term *nasya* covers all five varieties (40.21);<sup>433</sup> the preparation of a *nasya* and a *śirovirecana*, their indications, and the times of their administration (40.22–24);<sup>434</sup> the technique of administering a *śirovirecana* *errhine* and the rules to be observed by the patient (40.25–27);<sup>435</sup> the administration of a *snehana* *errhine*, which should not be retained and swallowed, but spit out; the minimum dose is eight drops, the intermediate dose a *śukti*,<sup>436</sup> the maximum dose a *pāṇiśukti*<sup>437</sup> (40.28–30); after-treatment; things to be avoided by the patient (40.31); the signs of adequate, deficient and excessive administration of a *snehana* *errhine* (40.32–35); the proper doses of a *śirovirecana* *errhine* are four, six or eight drops, dependent on the strength of the patient; the signs of adequate, deficient and excessive administration; the procedure to be adopted in cases of deficient and excessive treatment (40.36–41); an *errhine* (*nasya*) should be used on alternate days or every third day, either for a week or three weeks, or as long as necessary (40.42); a patient overwhelmed by *vāta* should be treated with a *nasya* twice daily (40.43);<sup>438</sup> rules for the preparation, the administration, and the indications of an *avapīḍa* (40.44);<sup>439</sup> *śirovirecana* in particular groups of patients (40.45); powdered drugs (*cūrṇa*) should be used for *pradhamaṇa*; indications for this treatment (40.46);<sup>440</sup> contra-indications for the treatment with *errhines* (40.47);<sup>441</sup> disorders due to an improper administration of *errhines*; these disorders are caused by aggravation (*utkleśa*) or decrease (*kṣaya*) of the *doṣas*; the treatment of the disorders (40.48–50); the fourteen occasions suitable to the use of a *pratimarśa* (40.51); the beneficial effects on each of these occasions (40.52); the correct dose of medicated oil for a *pratimarśa* is that which, when snuffed, just reaches the oral cavity (40.53); beneficial effects of the treatment with an *errhine* (40.54–55); oil should be used as the *vehiculum* of an *errhine* in disorders caused by a combination of *kapha* and *vāta*, fat (*vasā*) in *vāta* disorders, ghee in *pitta* disorders,

bone marrow in disorders by a combination of pitta and vāta; oil, however, may be used in all cases since it does not disagree with the seat of kapha involved (i.e., the head) (40.56–57); gargles (kavala)<sup>442</sup> are of four types: snehin (oleating), prasādin (soothing), śodhin (purifying), and ropaṇa (promoting the healing of sores) (40.58); these should be used in disorders due to vāta, pitta, or kapha, and when sores are present in the oral cavity (40.59–60); the preparation of a gargle; the preparation of the patient (49.61); when the quantity of fluid can easily be moved about in the mouth it is called a kavala; when this is difficult, it is called a gaṇḍūṣa (50.62); both should be kept in the mouth until the cheeks are full of doṣas, and both nostrils and eyes begin to secrete a watery fluid; it should then be expelled and a fresh dose taken again (40.63); the fluids that may be employed (40.64); the signs of proper, deficient and excessive treatment (50.65–67); the treatment of a burning sensation in the mouth due to over-dosage (40.68); the remedy called pratisāraṇa<sup>443</sup> may be prepared with a kalka (paste), rasakriyā (inspissated juice), with honey as the vehiculum, and with a cūrṇa (powdered drug) (40.69); it is used in diseases of the mouth and should be applied with the tip of a finger; the signs of deficient and excessive treatment are like those of a kavala; pratisāraṇa cures the same diseases as kavala; a particular dietary regimen should be observed during the treatment (40.70–71).



## Chapter 5

### Kalpasthāna

Chapter one is devoted to the protection of foods and drinks (annapānarakṣā).

The subjects dealt with are: a king is always in danger of being poisoned; <sup>1</sup> women, wanting to secure a man's affection, may try to achieve their aim by the administration of (poisonous) preparations; <sup>2</sup> the contact with a poison-girl (viṣakanyā) <sup>3</sup> may also prove to be instantaneously fatal to a man; the (royal) physician should therefore always do his utmost to protect a king from being poisoned (1.4–7); the qualities the physician should possess who is in charge of the (royal) kitchen (mahānasa) (1.8–11); the royal kitchen, its location, design, utensils, personnel, etc. (1.12–13); the superintendent (adhyakṣa) of the kitchen should possess the same qualities as the (royal) physician (1.14ab); <sup>4</sup> the qualities required in those working in the kitchen (1.14cd–16ab); the responsibilities of the physician attached to the royal kitchen (1.16cd–17ab); all those with specialized tasks should be under the direct control of the (responsible) physician (1.17cd–18ab); characteristic features of a poisoner; his detection (1.18cd–24); <sup>5</sup> articles which may be poisoned (1.25–27); the detection of poisoned food by throwing it into a fire or giving it to various birds and other animals (1.28–34ab); <sup>6</sup> poisoning by the inhalation of the vapours (bāṣpa) arising from food, its symptoms and treatment (1.34cd–36); <sup>7</sup> the symptoms and treatment of poisoning by touching food with the hands (1.37) <sup>8</sup> and taking it into the mouth (1.38–39); <sup>9</sup> the symptoms and treatment in case the poison has reached the āmāśaya (1.40–41) <sup>10</sup> or pakvāśaya (1.42–43); <sup>11</sup> the characteristics of poisoned liquids (1.44–45), vegetables, fruits, soups, etc. (1.46–47); <sup>12</sup> the characteristic of a poisoned toothbrush (dantakāṣṭha), the symptoms caused by its use, and the treatment of this type of poisoning (1.48–50); <sup>13</sup> the disorders caused by a poisoned tongue-scraper (jihvānirlekha) or gargle (kavala) should be treated in the same way (1.51ab); the characteristics of poisoned substances used for abhyariga (massage oils); the disorders caused by their use and the treatment of these disorders (1.51cd–54); <sup>14</sup> poisoning by substances used for utsādana and pariṣeka, by decoctions (kaṣāya), ointments (anulepana), bedding, garments, and armour (tanutra) shows the same features (1.55); <sup>15</sup> the symptoms caused by a poisoned avalekhana <sup>16</sup> and their treatment (1.56–58); poisoning by hair oils (śiro'bhyaṅga), head covers, bathing water, turbans (uṣṇīṣa), and garlands requires the same treatment (1.59); <sup>17</sup> symptoms caused by poisoned facial cosmetics (mukhālepa) and their treatment (1.60–61); <sup>18</sup> the symptoms of poisoning in an elephant and other animals used for riding; the symptoms occurring in those riding these animals; the treatment of animal and rider is the same as that in poisoning by an abhyariga (1.62–63ab); <sup>19</sup> the symptoms of poisoning by errhines (nasya) or medicinal smokes

and fumigations (dhūma) and their treatment (1.63cd–65ab);<sup>20</sup> the characteristics of a poisoned flower garland and the symptoms caused by smelling it; the treatment is similar to that employed in poisoning by vapours and facial cosmetics (1.65cd–66);<sup>21</sup> the symptoms caused by poisoned oils for the ears and the treatment of such cases (1.67–68); the symptoms caused by a poisoned collyrium (añjana) and their treatment (1.69–72ab);<sup>22</sup> the symptoms caused by poisoned sandals (pādukā), shoes (upānah), and foot-stools (pādapiṭha); their treatment (1.72cd–73);<sup>23</sup> the characteristics of poisoned ornaments and the symptoms caused by their use;<sup>24</sup> the treatment of poisoning by footwear or ornaments is like that of poisoning by an abhyaṅga (1.74–75a); general therapeutic measures: the mahāsugandhyagada, strong purgatives and emetics, and phlebotomy (1.75cd–78ab); the plants called mūṣikā and ajaruhā, tied round the wrists of a king, make all poisoned foods harmless (1.78cd–79ab); a wise (king) should, surrounded by his friends, always protect his heart (hrdayāvvaraṇa),<sup>25</sup> drink the ghees called ajeya<sup>26</sup> and amṛta,<sup>27</sup> and regularly take particular articles of diet (1.79cd–81); meat dishes and other dietary items which counteract poisons (1.82–84); someone who has ingested a poisonous substance should protect his heart and be made to vomit (1.85).

Chapter two is devoted to the knowledge of poisons of vegetable and mineral origin (sthāvaraviṣa).

Its subjects are: the two groups of poisonous substances: sthāvara and jaṅgama (of animal origin); the sources (adhiṣṭhāna) of the first group are ten, those of the second group sixteen in number (2.3); the ten sources of sthāvara poisons are: roots, leaves, fruits, flowers, barks, milky juices (kṣīra), piths (sāra), gums and resins (niryāsa), inorganic substances (dhātu), and bulbs and tubers (kanda) (2.4); the poisonous roots, eight in number, are those of klītaka, aśvamāra, guṇjā, sugandha, gargaraka,<sup>28</sup> karaghāṭa, vidyucchikā, and vijayā; the five plants with poisonous leaves are viṣapatrikā, lambā, (a)varadāru, karambha, and mahākarambha; the twelve plants with poisonous fruits are kumudvatī, veṇukā, karambha, mahākarambha, karkoṭaka, reṇuka, khadyotaka, carmarī, ibhagandhā, sarpaghātin, nandana, and sārapāka; the five plants with poisonous flowers are vetra, kadamba, vallīja, karambha and mahākarambha; the seven plants with a poisonous bark, pith or gum are antrapācaka, kartariya, saurīyaka, karaghāṭa, karambha, nandana, and nārācaka;<sup>29</sup> the three plants with a poisonous milky juice are kumudaghnī, snuhī and jālakṣīrī; the two mineral poisons are phenāśman and haritāla; the thirteen plants with poisonous bulbs or tubers are kālakūṭa,<sup>30</sup> vatsanābha, sarṣapa, pālaka, kardamaka, vairāṭaka, mustaka, śṛṅgiṣa, prapuṇḍarīka, mūlaka, hālāhala,<sup>31</sup> mahāviṣa, and karkāṭaka;<sup>32</sup> the total number of sthāvara poisons is fifty-five (2.5); the general symptoms caused by each of the first nine types of sthāvara poisons (2.7–10); after some time, all these poisons prove to be fatal (2.11ab);<sup>33</sup> the poisons of bulbs and tubers have a strong action; the symptoms caused by each of the thirteen plants belonging to this group (2.11cd–18ab); the ten properties they have in common: rūkṣa, uṣṇa, tīkṣṇa, sūkṣma, āśu, vyavāyin, vikāśin, viśada, laghu, and apākin (indigestible) (2.18cd–20ab);<sup>34</sup> the effects of these properties (2.20cd–23);<sup>35</sup> any poison, whether sthāvara, jaṅgama or kṛtrima (artificial), which is

instantaneously fatal, should be known as possessing the ten (mentioned) properties (2.24); any poison, not fully eliminated from the body, present within the system for a long time (jīrṇa), enfeebled by the action of antidotes, desiccated by the action of fire, wind or sun, or naturally lacking part of the properties of a poison, is designated as dūṣīviṣa;<sup>36</sup> dūṣīviṣa ceases to be fatal owing to the weakness of its potency, and is, covered by kapha, retained for a long time (2.25–26);<sup>37</sup> the general symptoms caused by dūṣīviṣa (2.27);<sup>38</sup> the actions on the doṣas and dhātus of dūṣīviṣa when lodged in āmāśaya, pakvāśaya or one or more of the dhātus (2.28–29ab);<sup>39</sup> the symptoms flare up by exposure to cold, wind and bad weather (durdina) (2.29cd);<sup>40</sup> the prodromes of poisoning by dūṣīviṣa (2.30ab); the symptoms and disorders caused by dūṣīviṣa (2.30cd–32);<sup>41</sup> the derivation of the term dūṣīviṣa (2.33);<sup>42</sup> the signs characteristic of the seven stages (vega) of poisoning by a sthāvara substance (2.34–39);<sup>43</sup> treatment during each of these stages (2.40–43);<sup>44</sup> general measures in cases of poisoning (2.44–46); the preparation of ajeyaghṛta, which counteracts all poisons (2.47–49); the antidote (agada) called dūṣīviṣāri; the preliminary treatment of the patient and the preparation of this drug (2.50–52); complications that may arise in poisoning; their treatment (2.53–54); (the disorders caused by) dūṣīviṣa are curable in self-possessed patients and when they are of recent origin; cases of more than one year's standing are generally palliable, but become incurable when the patient has become weak and leads an unhealthy life (2.55).

Chapter three is devoted to the knowledge of poisons of animal origin (jaṅgamaviṣa).

Its subjects are: the enumeration of the already briefly mentioned sixteen sources of poisons of animal origin; these poisons reside in the gaze (dṛṣṭi), breath (nīḥśvāsa), fangs (daṁṣṭrā), nails (nakha), urine, excrement, semen, saliva (lālā), menstrual discharge (ārtava), biting parts (mukhasaṁdaṁṣā), flatus (viśardhita), mouth parts (tuṇḍa), bones, bile, bristles (śūka), and dead bodies (śava) (3.4); the poison of celestial (divya) serpents resides in their gaze and breath, that of earthly (bhauma) snakes in their fangs; the poison is located in the teeth (daṁṣṭrā) and nails of cats, dogs, monkeys (vānara), makaras,<sup>45</sup> frogs, pākamatsyas,<sup>46</sup> godhās,<sup>47</sup> śambūkas,<sup>48</sup> pracalākas,<sup>49</sup> gr̥hagodhikās,<sup>50</sup> small invertebrates with four legs (catuṣpādakīṭa), etc., in the urine and excrements of cipīṭas, piccīṭakas,<sup>51</sup> kaṣāyavāsikas,<sup>52</sup> sarṣapakas,<sup>53</sup> toṭakas,<sup>54</sup> varcaḥkīṭas,<sup>55</sup> and kaṇḍīnyakas,<sup>56</sup> in the semen of mūṣikas,<sup>57</sup> in the saliva, urine, excrements, biting parts, nails, semen and menstrual discharge of spiders (lūtā), in the stinging parts (āra) of scorpions (vṛścika), viśvambharas,<sup>58</sup> varaṭis,<sup>59</sup> rājīvamatsyas,<sup>60</sup> uccīṅgingas,<sup>61</sup> and samudravṛścikas,<sup>62</sup> in the biting parts, flatus, urine and excrements of the animals called citraśīras,<sup>63</sup> sarāva,<sup>64</sup> kurdiśāta, dāruka, arime-daka,<sup>65</sup> and sārīkāmukha,<sup>66</sup> in the biting parts of makṣikās,<sup>67</sup> kaṇabhas<sup>68</sup> and leeches, in the bones of animals killed by a poison, in the scales (kaṇṭaka) of a snake, in the bones of a varaṭimatsya, in the bile of a śakulīmatsya, raktarāji<sup>69</sup> and varaṭimatsya,<sup>70</sup> in the bristles and mouth parts of the animals called sūkṣmatuṇḍa, uccīṅginga, varaṭi,<sup>71</sup> śatapadī,<sup>72</sup> śūka, valabhikā,<sup>73</sup> śṛṅgī,<sup>74</sup> and bluamara,<sup>75</sup> in the dead bodies of kīṭas and snakes, and in the biting parts of animals not mentioned (3.5); the enemies of a king, when invading his country, poison the pastures, waters, roads, food, smoke, and air;<sup>76</sup>

purificatory measures should be taken after recognizing the characteristics (3.6); signs indicating that water has been poisoned; disorders caused by it; methods of purifying poisoned water (3.7–10ab);<sup>77</sup> the disorders caused by poisoned soil (kṣīti), stone slabs (śilātala), steps on the bank of a river at a tīrtha (place of pilgrimage), uncultivated soil (īriṇa); purificatory measures (3.10cd–12); symptoms caused by poisoned grass and other fodder; treatment by means of appropriate drugs and by beating on drums and sounding other musical instruments, besmeared with anti-poisonous substances (3.13–15);<sup>78</sup> signs of poisoned air; disorders caused by it; purification of the air (3.16–17); the mythic origin of poison, associated with Brahmā's wrath over the asura Kaiṭabha,<sup>79</sup> who obstructed the creation of the living beings (3.18–22);<sup>80</sup> just like rain water, which has no manifest taste and acquires the taste of the soil it falls upon, poison acquires the taste of the substance in which it stays after pervading it (3.23–24); poisons excite all the doṣas by their sharp (tīkṣṇa) property; for that reason, these doṣas forego their proper functions; since poisons cannot be digested, they obstruct the prāṇas; breathing becomes difficult because its pathway is covered by kapha; consequently, a poisoned person, though remaining alive, loses consciousness (3.25–27); the venom of snakes is, like semen, present throughout their body; just like semen is collected and ejaculated by friction, snake venom is collected in the hook<sup>81</sup>-like fangs in a state of anger and cannot be emitted without lowering them (3.28–29);<sup>82</sup> sprinkling (parīṣeka) with cold water is indicated in poisoning by hot and sharp substances; sudation is, however, not contraindicated in poisoning by kīṭas with slow-acting and not very hot poisons; poisoning by kīṭas with strong poisons should be treated like cases of snake-bite (3.30–32ab); the flesh of animals killed by a poisoned arrow or the bite of a poisonous animal should not be eaten, except when consumed within a muhūrta and when the area of the injury is excluded, because the poison spreads from the site of injury to all the other parts of the body (3.32cd–35ab); the symptoms of someone who has taken poison; the heart of such a person cannot be consumed by fire, because it is pervaded by the poison (3.35cd–37);<sup>83</sup> signs indicating a fatal outcome in cases of snake-bite (3.38–44).<sup>84</sup>

Chapter four is devoted to the knowledge about the bites of venomous snakes.

Its subjects are: Suśruta's questions to Dhanvantari on the number of snakes, their classification, the symptoms caused by their bites, and the stages of poisoning (4.3–4); the innumerability of snakes, of which Vāsuki, Takṣaka, etc., are the foremost;<sup>85</sup> their actions and functions; the incurability of the disorders due to the breath<sup>86</sup> and gaze<sup>87</sup> of these (celestial) snakes, who deserve to be honoured by human beings (4.5–8ab); the earthly snakes with poisonous fangs are eighty in number; they are divided into either five: darvīkara, maṇḍalin, rājimant, nirviṣa and vaikaraṇja, or three groups: darvīkara, maṇḍalin and rājimant;<sup>88</sup> there are twenty-six kinds of darvīkara, twenty-two kinds of maṇḍalin, ten kinds of rājimant, twelve kinds of nirviṣa, and three kinds of vaikaraṇja;<sup>89</sup> the snakes of vaikaraṇja origin are seven in number, variegated (citra), and either maṇḍalin or rājila (4.8cd–13ab);<sup>90</sup> circumstances inciting a snake to bite; the three types of bite: sarpita, radita and nirviṣa; some add a fourth type, called sarpāṅgābhīhata (coming in contact with a snake's body) (4.13cd–14); the character-

istics of these four types (4.15–19); bites by diseased, frightened, very old or young snakes are less venomous (4.20);<sup>91</sup> snake poison does no harm in regions inhabited by Garuḍa,<sup>92</sup> deities, brahmaṛṣis, yakṣas and siddhas, nor in places where antipoissonous drugs abound (4.21);<sup>93</sup> the characteristics of darvikara,<sup>94</sup> maṇḍalin,<sup>95</sup> and rājimant<sup>96</sup> snakes (4.22–24);<sup>97</sup> the characteristics of brāhmaṇa, kṣatriya, vaiśya, and śūdra snakes (4.25–28);<sup>98</sup> snakes which are hooded (phaṇin)<sup>99</sup> excite vāta, maṇḍalin snakes pitta, rājimant snakes kapha;<sup>100</sup> hybrid snakes<sup>101</sup> excite two doṣas, dependent on those associated with their parents (4.29–30c);<sup>102</sup> rājimant snakes move about in the last quarter (yāma) of the night, maṇḍalin snakes in the first three quarters, darvikara snakes during the day (4.30d–31); fatal bites are those of a young darvikara, an old maṇḍalin, and a rājimant of middle age (4.32);<sup>103</sup> less dangerous are the bites of snakes which are defeated by a mongoose (nakula), or which are very young, distressed by water, weakened, or old, and which have recently cast off their skin (4.33);<sup>104</sup> the darvikara snakes are:<sup>105</sup> kṛṣṇasarpa,<sup>106</sup> mahākṛṣṇa, kṛṣṇodara, śvetakapota, mahākapota,<sup>107</sup> balāhaka, mahāsarpa, śaṅkhakapāla, lohitaḥṣa, gavedhuka, parisarpa, khaṇḍaphaṇa, kakuda, padma, mahāpadma, darbhapuṣpa, dadhimukha, puṇḍarīka, bhrūkuṭimukha, viṣkira, puṣpābhikīrṇa, girisarpa, ṛjusarpa, śvetodara, mahāśiras, alagarda, and āśiṣa;<sup>108</sup> the maṇḍalin snakes are: ādarśamaṇḍala, śvetamaṇḍala, raktamaṇḍala, citramaṇḍala, pṛṣata, rodhrapuṣpa, milindaka, gonasa,<sup>109</sup> vṛddhagonasa, panasa, mahāpanasa, veṇupatraka, śiśuka, madana, pāṇḍira, piṅgala, tantuka, puṣpapāṇḍu, ṣaḍaṅga, agnika, babhru, kaṣāya, kaluṣa, pārāvata, hastābharāṇa, citraka, and eṇṇipada;<sup>110</sup> the rājimant snakes are: puṇḍarīka, rājicitra, aṅgularāji, bindurāji, kardamaka, tṛṇaśoṣaka, sarṣapaka, śvetahanu, darbhapuṣpa, cakraka, godhūmaka, and kikkisāda;<sup>111</sup> the nirviṣa snakes<sup>112</sup> are: galagolī, śūkapatra, ajagara, divyaka, varṣāhika, puṣpaśakalin, jyotīratha, kṣīrikāpuṣpaka, ahipatāka, and dhāhika, gaurāhika, and vṛkṣeśaya;<sup>113</sup> vaikaraṇja snakes are cross-breeds of the above three groups; they are called mākuli, poṭagala, and snigdharāji;<sup>114</sup> mākuli is a cross-breed of kṛṣṇasarpa and gonasa, poṭagala of rājila and gonasa, snigdharāji of kṛṣṇasarpa and rājimant; some are of the opinion that the poison of a mākuli is like that of its male parent, that of the other two like that of their female parent; the vaikaraṇja snakes are of seven subtypes: divyelaka, rodhrapuṣpaka, rājicitraka, poṭagala, puṣpābhikīrṇa, darbhapuṣpa, and vellitaka; the first three resemble the rājila (= rājimant), the other four the maṇḍalin;<sup>115</sup> thus the eighty kinds of snakes have been described (4.34); characteristic features of male, female and napuṣsaka snakes (4.35);<sup>116</sup> the general effects of snake-bite (4.36); the signs and symptoms of bites by darvikara, maṇḍalin and rājimant snakes (4.37);<sup>117</sup> characteristic features of persons bitten by a male, female or napuṣsaka snake,<sup>118</sup> by a pregnant (garbhiṇī) snake, or one which has recently given birth (sūtikā),<sup>119</sup> by an old, young or non-venomous snake; some assert that the bite of a blind snake causes blindness; an ajagara<sup>120</sup> kills its victim by swallowing it, and not by means of poison; a person bitten by a serpent with an instantaneously deadly (sadyaḥprāṇahara) poison drops down and loses consciousness (4.38); the characteristic of the seven stages (vega) of poisoning by the bite of a darvikara, maṇḍalin, and rājimant snake respectively (4.39);<sup>121</sup> these stages result from the successive involvement of the seven kalās, which are located between the

dhātus;<sup>122</sup> the amount of time which a poison, transported by vāta, requires for the penetration of each subsequent kalā is called vegāntara (4.40–41); the characteristics of the four stages of poisoning by a snake-bite which occur in mammals (paśu); some are of the opinion that three stages, which include the fourth (described above), are characteristic of mammals; the characteristics of the three stages of poisoning by a snake-bite in birds; some hold that one stage only occurs in birds (4.42–45ab);<sup>123</sup> cats, mongooses, etc., are not much affected by (snake) poison (4.45cd).<sup>124</sup>

Chapter five, devoted to the treatment of snake-bites,<sup>125</sup> deals with the following subjects: bites in the extremities should be treated by the application of a tourniquet (ariṣṭā),<sup>126</sup> four aṅgula above the site of the bite; a piece of cloth (plota), leather (carmānta), (inner) bark of a tree (valka), and similar soft materials are suitable for a tourniquet; a tourniquet prevents spreading of the poison over the whole body (5.3–4);<sup>127</sup> wherever a tourniquet (bandha) cannot be applied, one should resort to incision (cheda), sucking (ācūṣaṇa), and cauterization (dāha) (5.6);<sup>128</sup> the patient should fill his mouth with a piece of cloth<sup>129</sup> and then suck the bite, or he should immediately bite the serpent, or, failing that, a clod of earth (loṣṭa) (5.6);<sup>130</sup> the seat of the bite by a maṇḍalin snake should never be cauterized because pitta, prevalent in a maṇḍalin poison, would rapidly spread due to its heat (5.7); the tying of the tourniquet should be accompanied by the muttering of mantras by an expert (5.8); the effectiveness of mantras,<sup>131</sup> which act more rapidly than drugs; rules to be kept by the mantra specialist; antidotes (agaḍa) should also be prescribed, because the improper use of mantras will not take effect (5.9–13); bloodletting in cases of snake-bite (5.14–15);<sup>132</sup> scarification (pracchana) of the bite, the application of a paste (pralepa), and irrigation (pariṣeka) of the lesion (5.16); oral medications (5.17–18ab); articles of diet to be avoided by the patient (5.18cd); the induction of vomiting (5.19); treatment during each of the seven stages of poisoning<sup>133</sup> by the bite of a darvikara (5.20–24ab), maṇḍalin (5.24cd–27), and rājimant snake (5.28–30ab); the described measures should be adopted in a milder form in case the patient is a pregnant woman, a child, or someone advanced in age (5.30cd–31ab); special rules for the treatment of animals bitten by a venomous snake (5.31cd–33ab); general rules regarding the dosages of medicinal preparations to be prescribed against snake-bite (5.33c–f); factors to be taken into consideration before beginning treatment: type of country, constitution, sātmya, season, stage of poisoning, and strength of the patient (5.34); bloodletting should speedily be resorted to when the bitten part is discoloured, hard, swollen, and painful (5.36); dietary rules for hungry patients and those with a predominance of vāta (5.37); the treatment of patients with symptoms mainly due to pitta (5.38); the treatment of patients with a constitution dominated by kapha and suffering from a type of poison that provokes kapha (5.39);<sup>134</sup> indications for purgation (5.40); the application of a collyrium (5.41); evacuation of the head (śirovīrecana) (5.42); the treatment of patients who lost consciousness (5.43–50ab);<sup>135</sup> treatment after the removal of a tourniquet (5.50cd–51ab); treatment of doṣas which remain excited after the elimination of a poison (5.51cd–54); treatment of patients who are unconscious due to a fall, drowning, or hanging (5.55); gangrene (pūtimāṃsa) may be caused by a

too tightly applied tourniquet, too deep scarifications, irritant pastes, etc.; its characteristics (5.56); the characteristic signs of arrow wounds and the symptoms occurring when it was besmeared with a poison (digdhaviddha) (5.57–58ab);<sup>136</sup> the treatment of gangrene (pūtimāmsa) (5.58cd–61ab); recipes of antidotes (agada)<sup>137</sup> and their effects: mahāgada (5.61cd–63ab),<sup>138</sup> ajitāgada (5.63cd–65ab),<sup>139</sup> tārksyāgada (5.65cd–68ab), ṣaḥbhāgada (5.68cd–73ab), and saṃjīvanāgada<sup>140</sup> (5.73cd–75ab); specific antidotes against darvikara and rājila snake venom (5.75cd–76ab)<sup>141</sup> and one against maṇḍalin snake venom (5.76cd–78ab);<sup>142</sup> another antidote: vaṃśatvagādyagada (5.78cd–80); antidotes which are specifics against the poison of kīṭas (5.81) and mūṣikās (5.82–83); the drugs belonging to the ekasara group; singly, or in a combination of two or three, these drugs counteract poisons (5.84–86).<sup>143</sup>

Chapter six is, in agreement with its title (duṇḍubhisvanīya), devoted to the (antipois-  
onous) sounds of drums, but this does not exhaust its contents.

The subjects dealt with are: the preparation of the antidote called kṣārāgada (6.3),<sup>144</sup> to be smeared on drums (duṇḍubhi),<sup>145</sup> banners (patākā),<sup>146</sup> and gateways (toraṇa); people hearing these drums, looking at these banners, or touching these gateways get rid of (the effects of) poison (6.4);<sup>147</sup> other disorders cured by kṣārāgada (6.5–6); this drug can be used always in all types of poisoning, for it subdues even Takṣaka,<sup>148</sup> the chief one (among the celestial serpents) (6.7); the preparation of kalyāṇakasarpis, which is recommended against many disorders, including those caused by gara<sup>149</sup> (6.8–11);<sup>150</sup> the preparation of amṛtagṛha<sup>151</sup> and its effects in cases of poisoning (6.12–13); the preparation of mahāsugandhyagada, a compound drug with eighty-five ingredients, the chief one among the antidotes, able to subdue even the infuriated Vāsuki,<sup>152</sup> the king of the nāgas (serpents); a king should always have it at his disposal and use it after bathing, which will make him beloved among his subjects and shining with majesty amidst his enemies (6.14–27);<sup>153</sup> all remedial measures, heating ones excepted, should be adopted in cases of poisoning; however, the disorders caused by poisonous kīṭas are aggravated by cooling measures (6.28); rules concerning the diet and behaviour of patients suffering from poisoning (6.29–31);<sup>154</sup> signs indicating the elimination of poison and cure of the patient (6.32).

Chapter seven (mūṣikakalpa) is devoted to poisoning by rat-bites.<sup>155</sup>

Its subjects are: rats (mūṣika), as mentioned before,<sup>156</sup> have poison in their semen; they are of eighteen kinds: lālana, putraka, kṛṣṇa, haṃsira, cikvira (or cikkira), chucchundara, alasa, kaṣāyadaśana, kuṇḍika, ajita, capala, kapila, kokila, aruṇa, mahākṛṣṇa, śveta, mahākapila, and kapotābha (7.3–6);<sup>157</sup> corruption of the blood occurs in that part of the body which has come in contact with the semen of a mūṣika, or its nails, teeth, etc., besmeared with semen (7.7); the general symptoms of poisoning by the bite of a mūṣika (7.8–10ab);<sup>158</sup> the symptoms and treatment of a bite by a lālana (7.10cd–11ab), putraka (7.11cd–12), kṛṣṇa (7.13), haṃsira (7.14), cikvira (7.15–16ab), chucchundara (7.16cd–18ab), alasa (7.18cd–19ab), kaṣāyadanta (7.19cd–20ab), kuṇḍika (7.20cd–21ab), ajita (7.21cd–22ab), capala (7.22cd–23ab), kapila (7.23cd–24ab), and kokila (7.24cd–25ab); the bite of the aruṇa excites vāta, that

of the mahākṛṣṇa pitta, that of the śveta kapha, that of the mahākapiḷa blood, and that of the kapota all four (doṣas) (7.25cd–26); the disorders caused by these bites (7.27) and their treatment (7.28–32ab); general measures against rat-bite poisoning (7.32cd–42);<sup>159</sup> the pathogenesis and characteristic signs of rabies in dogs, jackals (śṛgāla),<sup>160</sup> hyenas (tarakṣu),<sup>161</sup> bears (ṛkṣa), tigers, etc.<sup>162</sup> (7.43–44);<sup>163</sup> the symptoms caused by the bite of a rabid animal (7.45–46a); a person bitten imitates the behaviour of the animal by which he has been attacked<sup>164</sup> and dies ultimately (7.46cd–47ab); when the person bitten by an animal sees its image reflected in water or a mirror, this should be regarded as a sign foreboding death (7.47cd–48ab); when the patient becomes very frightened at the sight or touch of water, the disorder should be known as jalatrāsa (hydrophobia), which is a sure sign of impending death (7.48cd–49ab); hydrophobia developing in someone not bitten or in a healthy person, either awake or asleep, is also incurable (7.49cd–50ab); the management of the disorders caused by the bite of a rabid animal;<sup>165</sup> after-treatment (7.50cd–59ab); religious healing measures, accompanied by a mantra,<sup>166</sup> and followed by purificatory treatment (7.59cd–63ab); the wild animals mentioned, with poison in their teeth (daṃṣṭrā), make the bitten person imitate their behaviour and cries (ruta); such a patient, even when treated with care, dies within a short time (7.63cd–64); the wounds caused by the nails and teeth of these wild animals should be rubbed and sprinkled over with tepid oil, since the poison of these animals excites vāta (7.65).<sup>167</sup>

Chapter eight (kīṭakalpa) is devoted to poisoning by kīṭas.

The subjects dealt with are: kīṭas, which arise from the semen, excrements, urine, dead bodies and decomposing eggs of snakes, are constitutionally dominated by vāyu, agni or ambu,<sup>168</sup> and are of various kinds; those which are constitutionally connected with all three doṣas are, due to pariṇāma,<sup>169</sup> very dangerous (sughora), in spite of being only kīṭas; four groups of kīṭas are distinguished (8.3–4); the kīṭas dominated by vāta, which make vāta excited and cause vāta diseases by their bites, are eighteen in number: kumbhīnāsa, tuṇḍikerī, śṛṅgī,<sup>170</sup> śatakulīraka,<sup>171</sup> uccīṅga,<sup>172</sup> agnināman, ciccīṅga, mayūrikā, āvartaka, urabhra, sārīkāmukha, vaidala, śarāvākūrda,<sup>173</sup> abhīrāji, paruṣa, citraśīrṣaka,<sup>174</sup> śatabāhu, and raktarāji<sup>175</sup> (8.5–8ab); the kīṭas, in the same way dominated by agni (= pitta), are twenty-four in number: kaṇḍīnyaka,<sup>176</sup> kaṇabhaka,<sup>177</sup> varaṭī, patravṛścika, vināśikā, brāhmaṇikā, bindula,<sup>178</sup> bhramara,<sup>179</sup> bāhyakī, piccīta,<sup>180</sup> kumbhī, varcaḥkīṭa,<sup>181</sup> arimedaka,<sup>182</sup> padmakīṭa, dundubhika, makara, śatapādaka,<sup>183</sup> pañcālaka, pākamatsya,<sup>184</sup> kṛṣṇatunḍa, gardabhi, klīta, kṛmīsarārī, and utkleśaka (8.8cd–12ab); the kīṭas, similarly dominated by soma (= kapha), are thirteen in number: viśvambhara,<sup>185</sup> pañcaśukla, pañcakṛṣṇa, kokila, saireyaka, pracalaka,<sup>186</sup> valabha,<sup>187</sup> kiṭibha, sūcīmukha, kṛṣṇagodhā, kaṣāyavāsi-ka,<sup>188</sup> gardabhaka, and troṭaka<sup>189</sup> (8.12cd–15ab); the twelve kīṭas with fatal bites are: tuṅgīnāsa, vicilaka, tālaka, vāhaka, koṣṭhāgārin,<sup>190</sup> krimikara, maṇḍalapucchaka, tuṇḍanābha, sarṣapika,<sup>191</sup> valguli, śambuka, and agnikīṭa;<sup>192</sup> the characteristics of the stages of poisoning by their bites are similar to those by snake-bites; their bites give rise to severe pains and diseases caused by concerted action of the doṣas; the site of their bite shows the same colours as those produced by a caustic or by cauterization



(8.15cd–18); symptoms caused by kīṭas with a sharp (tīkṣṇa) poison (8.19–21); the other symptoms they cause are like those of dūṣiṣa or poisonous plasters<sup>193</sup> (8.22–23a); symptoms brought about by kīṭas with a slow (manda) poison (8.23b–24ab); the powdered bodies (of these kīṭas), which act like dūṣiṣa, turn into gara<sup>194</sup> when combined with various drugs or employed in a plaster (anulepana) (8.24cd–25ab); the four kinds of kaṇabha: <sup>195</sup> trikaṇṭa, <sup>196</sup> karinī, hastikakṣa, and aparājita; the symptoms their very painful bites give rise to (8.26–27); <sup>197</sup> the five kinds of godheraka: <sup>198</sup> pratisūryaka, piṅgābhāsa, <sup>199</sup> bahuvarṇa, <sup>200</sup> nirūpama, and godheraka; <sup>201</sup> the symptoms produced by their bites (8.28); the six kinds of galagolikā: śvetā, kṛṣṇā, raktarājī, raktamaṇḍalā, sarvaśvetā, and sarṣapikā; the symptoms caused by the bites of the first five; the symptoms caused by the fatal bite of the sarṣapikā (8.29); the eight kinds of śatapadi: paruṣā, kṛṣṇā, citrā, kapilā, pīṭikā, raktā, śvetā, and agniprabhā; the symptoms produced by their bites; <sup>202</sup> the additional symptoms of the bite by a śvetā or an agniprabhā (8.30); the eight kinds of frogs<sup>203</sup> (maṇḍūka): <sup>204</sup> kṛṣṇa, sāra, kuhaka, harita, rakta, yavavarṇābha, bhṛkuṭī, and koṭika; <sup>205</sup> symptoms caused by their bites; <sup>206</sup> additional symptoms by the bite of a bhṛkuṭī or a koṭika (8.31); the characteristics of and symptoms caused by the bites of a viśvambhara (8.32), ahiṇḍukā, kaṇḍūmakā, and śukavṛntā (8.33); the six kinds of ants (pipīlikā): sthūlaśīrṣaṇ, saṃvāhikā, brāhmaṇikā, aṅgulikā, kapilikā, and citravarṇā; the characteristic signs caused by their bite (8.34); the six kinds of makṣikā: <sup>207</sup> kāntārikā, kṛṣṇā, piṅgalā, madhulikā, kaṣāyī, and sthālikā; the characteristic signs caused by their bite; <sup>208</sup> additional symptoms caused by the fatal bite of a kaṣāyī or a sthālikā<sup>209</sup> (8.35); the five kinds of maśaka: <sup>210</sup> sāmudra, parimaṇḍala, hastimaśaka, kṛṣṇa, and pārvatīya; the characteristic signs of their bite; <sup>211</sup> the bite of a pārvatīya is fatal (8.36); the signs of a scratch by finger nails; the bites of leeches and their treatment have already been described<sup>212</sup> (8.37); (the bites of) the godherikā, sthālikā, śvetā, agniprabhā, bhṛkuṭī, and koṭika are incurable (8.38); <sup>213</sup> the symptoms elicited by contact with the dead body, urine, or excrements of a poisonous animal; the treatment is like that of a wound by a poisoned arrow (digdhaviddha) (8.40); characteristics of kīṭa bites which make treatment very troublesome (8.41); the treatment of bites by kīṭas with a powerful (ugra) poison (8.42–44ab); treatment with the utkārikā type of sudation (8.44cd–45); this treatment is contra-indicated in scorpion stings (8.46ab); specific antidotes (agada) against the bites of a trikaṇṭaka, galagolika, śatapad, maṇḍūka, viśvambhara, ahiṇḍukā, kaṇḍūmakā, śukavṛnta, pipīlikā, makṣikā, and maśaka (8.46cd–55); the treatment of scratches by finger nails (8.56ab); the bite by a pratisūryaka should be treated like a snake-bite (8.56cd); three groups of scorpions (vṛścika)<sup>214</sup> are distinguished: those with a mild (manda), moderate (madhya) and strong poison (mahāviṣa); <sup>215</sup> scorpions arising from cow dung and similar materials possess a mild poison, those arising from wood or bricks a moderate, <sup>216</sup> those arising from the decomposing body of a snake or from other poisonous materials a strong (tīkṣṇa) poison (8.56ef–57); those with a mild poison are twelve, those with a moderate poison three, and those with a strong poison fifteen in number, thus making a total of thirty (8.58); the scorpions with a mild poison are kṛṣṇa (black), śyāva, karbura (variegated), pāṇḍu (pale), gomūtrābha (coloured like cow's urine), karkaśa (rough), mecaka (bluish black), pīṭa (yellow), dhūmra

(smoke coloured), romaśa (hairy), śādvalābha (coloured like grass), or rakta (red), and śvetodara (having a white abdomen); these scorpions have more joints in their tails than other types (8.59–60ab); the symptoms caused by their stings (8.60cd–61ab); the scorpions with a moderate poison are rakta (red), pīta (yellow) or kapila, with a dhūmra (smoke coloured) belly; all of them have three joints (in their tails); they arise from the urine, excrements and decomposing eggs of the three groups of snakes,<sup>217</sup> and cause disorders of the same doṣas as these snakes (8.61cd–62); the general symptoms of stings by these scorpions (8.63ab); the scorpions with a strong poison are śveta (white), citra (spotted), śyāmala, lohitaḥbha (coloured like blood), rakta (red) or śveta (white) with a rakta (red) or nīla (dark blue) belly, pītarakta (yellow and red), nīlapīta (dark blue and yellow), raktanīla (red and dark blue), nīlaśukla (dark blue and white), or raktababhu (red and brown), possessing the same number of joints (three) as the previous group, one joint, no joints at all, or two joints; they are of various forms and colours, dreadful, and deadly; they find their origin in the decomposing bodies of snakes and animals killed by poison (8.63cd–65); their stings give rise to the same seven stages of poisoning as those caused by a snake-bite, and also to a series of other symptoms, ending in death (8.66);<sup>218</sup> treatment of stings by scorpions with a moderate or strong poison (8.67–68ab) treatment of stings by scorpions with a mild poison (8.68cd–74);<sup>219</sup> a physician should accurately determine whether a person has been bitten by a venomous or non-venomous spider (lūtā), because spider poisons are very dangerous; in case of doubt, he should employ drugs which are non-contradictory (avirodhin) under the circumstances; antidotes (agadas) are only useful in cases of poisoning, and, employed otherwise, harmful (8.75–78); the symptoms caused by spider venom develop slowly; shortly after the bite, they are very difficult to ascertain; the symptoms appearing on the first to seventh day; the victim is liable to die on the seventh day, if the poison is sharp (tīkṣṇa), violent (caṇḍa), and strong (ugra); poisons of a moderate potency take some more time; mild poisons kill after a fortnight; the physician should therefore initiate treatment immediately after the bite (8.79–84); spiders emit their poison in seven different ways; it is present in their saliva (lālā), nails (nakha), urine, fangs (daṃṣṭrā), menstrual discharge (rajas), excrements, and semen (indriya); its potency is strong, moderate or mild (8.85); the symptoms caused by contact with spider venom from these seven sources (8.86–88ab);<sup>220</sup> the mythic origin of spiders, which arose from the drops of sweat falling from the forehead of Vaśiṣṭha, whose wrath was aroused by the behaviour of Viśvāmitra (8.88cd–93);<sup>221</sup> there are sixteen kinds of spiders;<sup>222</sup> the bites of eight kinds are curable with difficulty, while the others are incurable (8.94);<sup>223</sup> the spiders of the first group are: trimāṇḍalā, śvetā, kapilā, pītikā, ālavaṣā, mūtraviṣā, raktā, and kasanā; the symptoms caused by their venom; characteristic features are disorders caused by kapha and vāta (8.95–96); the spiders of the second group are: sauvarṇikā, lājavarṇā, jālinī, eṇipadī, kṛṣṇā, agnivarṇā, kākāṇḍā, and mālāguṇā; the symptoms caused by their venom; characteristic features are disorders brought about by the three doṣas (8.97–99);<sup>224</sup> the symptoms of the bite by a trimāṇḍalā and their treatment (8.101–102); the same with regard to the bite by a śvetā (8.103–104), kapilā (8.105–106), pītikā (8.107–108), ālavaṣā (8.109–110), mūtraviṣā (8.111–112), raktā (8.113–114), kasanā (8.115), kṛṣṇā

(8.116–117), and agnivaktrā<sup>225</sup> (8.118–119ab); general remedies against spider bites (8.119cd–120);<sup>226</sup> the symptoms and treatment of the bites of eight spiders which are curable with difficulty have been described, along with two of the incurable ones; they may, sometimes, with good luck (yadr̥ccayā), be treated successfully (8.121ab); the symptoms caused by the six remaining kinds, which are incurable (8.121cd): sauvarṇikā (8.122), lājavarṇā (8.123), jālinī (8.124), eṇīpadī (8.125), kākāṇḍikā (8.126), and mālāguṇā (8.127); these bites should be managed by all the described measures, taking particularly into consideration the derangements of the doṣas, and excluding cauterization and excision (8.128); excision of the area of the bite should at once be carried out in curable cases, provided the lesion is not in the area of a marman, the patient is free from fever, and local swelling is minimal (8.129–130); afterwards, a plaster (lepa) should be applied (8.131); the recipe of the potion to be administered to the patient (8.132); the decoction to be used for washing the lesion (8.133ab); the treatment of complications (8.133cd); any of the following measures should be employed, as required by the case, against spider bites: errhines, collyria, unguents (abhyañjana), potions, fumigation, avapīḍas, gargles, intense purificatory measures of both types (i.e., emetics and purgatives), and bloodletting by means of phlebotomy (8.134); ulcers (vraṇa), incidental to the bites of kīṭas and snakes, should be treated like corrupted sores (duṣṭavraṇa) (8.135); the treatment of an excess of granulation tissue (karṇikā) (8.136–138); thus the classification, the characteristics of the bites and the treatment of these bites, of one hundred and sixty-seven kīṭas have been described (8.139).

This last chapter of the Kalpasthāna ends with the statement that one hundred and twenty chapters are completed now, divided over the various sections; subjects not yet mentioned will be dealt with in the Uttara(tantra) (8.140); some verses are devoted to the praise of āyurveda (8.141–143).

## Chapter 6

### Uttaratantra

Chapter one, called *aupadravika*,<sup>1</sup> begins with the statement that the *Uttaratantra*, often referred to in the preceding one hundred and twenty chapters, will be concerned with various kinds of diseases (*roga*) (1.3–4). The *Uttaratantra* will deal with the subjects of the *śālākya*tantra, as expounded by the king of Videha,<sup>2</sup> with the diseases of children (*kumārābādha*) and their causes,<sup>3</sup> the diseases belonging to *kāyacikitsā*, as described in the six books on this subject by the great sages,<sup>4</sup> the diseases belonging to the categories *upasarga*<sup>5</sup> and *āgantū*,<sup>6</sup> the sixty-three combinations of tastes,<sup>7</sup> rules relating to the maintenance of health (*svasthavṛtta*),<sup>8</sup> the (*tantra*)*yuktis* and their applications,<sup>9</sup> and, finally, the *doṣas* and their combinations<sup>10</sup> (1.5–7).

The diseases pertaining to the head (*uttamāṅga*) will be described first (1.8cd–9).<sup>11</sup>

The subjects dealt with are:<sup>12</sup> the measurements of the eyeball<sup>13</sup> (*nayanabudba*); it is two *aṅgula* in depth (*bāhulya*),<sup>14</sup> or as deep as the *udara* of one's own thumb;<sup>15</sup> it is two *aṅgula* and a half on all sides (*sarvataḥ*)<sup>16</sup> (1.10); the eyeball is perfectly globular (*suṇṛtta*), resembles the teat of a cow, and originates from all the (*mahā*)*bhūtas*; the muscular tissue (*pala*) derives from earth, the blood from fire, the black portion from air (*vāta*), the white portion from water, and the channels for the tears (*aśrumārga*) from *ākāśa* (1.11–12ab); the black circular portion (*kr̥ṣṇamaṇḍala*) is said to measure one-third of the height (*āyāma*)<sup>17</sup> of the eyeball; the pupil (*dr̥ṣṭi*) is said to measure one-seventh of the black portion (1.12cd–13);<sup>18</sup> the eye consists of *maṇḍalas*, *sandhis* and *paṭalas*, which are five, six and six in number respectively (1.14);<sup>19</sup> the *maṇḍalas* (circular structures) are successively, when moving from the periphery towards the central part:<sup>20</sup> *pakṣmamamaṇḍala* (the eyelashes), *vartmamamaṇḍala* (the eyelids), *śvetamaṇḍala* (the white part),<sup>21</sup> *kr̥ṣṇamaṇḍala* (the black part),<sup>22</sup> and *dr̥ṣṭīmaṇḍala*<sup>23</sup> (1.15);<sup>24</sup> the *sandhis* (junctures) are found between eyelashes and eyelids, eyelids and white part, white part and black part, black part and pupil, at the *kanīnaka* (inner canthus), and at the *apāṅga* (outer canthus) (1.16); two *paṭalas* (layers) are present in the eyelids; the other four in the eye itself are the seats of a very serious disease, called *timira* (1.17); the outermost of these four *paṭalas* is closely connected (*āśrita*) with the fiery and watery parts of the eye,<sup>25</sup> the other ones are connected with the muscles, fatty tissue, and bones respectively (1.18);<sup>26</sup> their thickness (*bāhulya*) is one-fifth of the *dr̥ṣṭi* (1.19ab); the (structures) holding (the parts of) the eyes together are the *sirās*, *kaṇḍarās*, fatty tissue (*medas*), cartilaginous tissue (*kālaka*),<sup>27</sup> and, beyond the *kāla*,<sup>28</sup> the phlegm (*śleṣman*), along with its *sirās* (1.19cd–20ab); the *doṣas*, spreading upwards through the *sirās*, cause very serious diseases when they reach the eyes (1.20cd–21ab);<sup>29</sup> the prodromes of eye diseases (1.21cd–23); general

principles of treatment (1.24–25); aetiological factors in eye diseases (1.26–27); ten eye diseases are due to vāta, ten to pitta, thirteen to kapha, sixteen to blood, twenty-five to all the doṣas together, and two to exogenous (bāhya) factors, thus making a total of seventy-six (1.28–29ab).<sup>30</sup> incurable diseases due to vāta are: hatādhimantha,<sup>31</sup> nīmīṣa,<sup>32</sup> gambhīrikā dr̥ṣṭiḥ,<sup>33</sup> and vātahatavartman;<sup>34</sup> vātajakāca<sup>35</sup> is amenable to palliative treatment; curable are: anyamāruta,<sup>36</sup> śuṣkākṣipāka,<sup>37</sup> vātādhimantha,<sup>38</sup> vātasyanda,<sup>39</sup> and mārutaparyaya<sup>40</sup> (1.29cd–31ab); incurable diseases due to pitta are: hrasvajādyā<sup>41</sup> and the pitta type of jalasrāva;<sup>42</sup> the parimlāyin<sup>43</sup> and nīla types of kāca<sup>44</sup> are amenable to palliative treatment when due to pitta; curable are the pitta types of abhiṣyanda<sup>45</sup> and adhimantha,<sup>46</sup> amlādhyuṣita,<sup>47</sup> śūktikā,<sup>48</sup> pittavidagdhadr̥ṣṭi,<sup>49</sup> and dhūmadarśin<sup>50</sup> (1.31cd–33ab); an incurable disease is srāva caused by kapha,<sup>51</sup> kāca due to kapha is amenable to palliative treatment,<sup>52</sup> curable are the kapha types of abhiṣyanda<sup>53</sup> and adhimantha,<sup>54</sup> balāsagrathita,<sup>55</sup> śleṣmavidagdhadr̥ṣṭi,<sup>56</sup> pothakī,<sup>57</sup> lagaṇa,<sup>58</sup> krimigranthi,<sup>59</sup> pariklinnavartman,<sup>60</sup> śuklārman,<sup>61</sup> piṣṭaka,<sup>62</sup> and the kapha type of upanāha<sup>63</sup> (1.33cd–35); incurable diseases due to blood are raktasrāva,<sup>64</sup> ajākājāta,<sup>65</sup> śoṇitārśas,<sup>66</sup> and vraṇānvitaśukra;<sup>67</sup> kāca due to blood<sup>68</sup> is amenable to palliative treatment; curable are the rakta types of (adhi)mantha<sup>69</sup> and (abhi)ṣyanda,<sup>70</sup> klišṭavartman,<sup>71</sup> sirāharṣa,<sup>72</sup> sirotpāta,<sup>73</sup> añjanākhyā,<sup>74</sup> sirājāla,<sup>75</sup> parvaṇī,<sup>76</sup> avraṇaśukra,<sup>77</sup> śoṇitārman,<sup>78</sup> and arjuna<sup>79</sup> (1.36–38); incurable diseases due to all the doṣas are: pūyāsrāva,<sup>80</sup> nākulāndhya,<sup>81</sup> akṣipākātyaya,<sup>82</sup> and alajī,<sup>83</sup> amenable to palliative treatment are: kāca, when caused by all the doṣas,<sup>84</sup> and pakṣmakopa;<sup>85</sup> curable are: vartmāvabandha,<sup>86</sup> sirāpidakā,<sup>87</sup> prastāryarman,<sup>88</sup> adhīmāṁsarman,<sup>89</sup> snāyvarman,<sup>90</sup> utsarigini,<sup>91</sup> pūyālasa,<sup>92</sup> arbuda,<sup>93</sup> śyāvavartman,<sup>94</sup> kardamavartman,<sup>95</sup> arśovartman,<sup>96</sup> śuṣkārśas,<sup>97</sup> śarkarāvartman,<sup>98</sup> saśopha- and aśopha-pāka,<sup>99</sup> bahalavartman,<sup>100</sup> aklinnavartman,<sup>101</sup> kumbhīkā,<sup>102</sup> and bisavartman<sup>103</sup> (1.39–42); the sanimitta and animitta types of exogenous eye disease<sup>104</sup> are incurable (1.43ab); thus the seventy-six eye diseases have briefly been enumerated (1.43cd); nine eye diseases occur in the junctures (sandhi), twenty-one in the eyelids, eleven in the white part, four in the black part, seventeen in the whole eye, and twelve in the dr̥ṣṭi; the two exogenous diseases are very serious; all these diseases will (now) be dealt with separately, along with their symptoms and treatment (1.44–45).

Chapter two is devoted to the knowledge concerning diseases of the junctures (sandhi).

The subjects are: the nine diseases of the junctures: pūyālasa, upanāha, (the four types of) srāva, parvaṇīkā, alajī, and kṛmigranthi (2.3); the characteristics of pūyālasa<sup>105</sup> (2.4ab) and upanāha<sup>106</sup> (2.4cd); the pathogenesis of srāva,<sup>107</sup> regarded by some as netranāḍī;<sup>108</sup> the characteristics of the four types of srāva:<sup>109</sup> pūyāsrāva,<sup>110</sup> āsrāva due to kapha,<sup>111</sup> blood,<sup>112</sup> and pitta<sup>113</sup> (2.5–7); the characteristics of parvaṇī<sup>114</sup> and alajī<sup>115</sup> (2.8), and those of krimigranthi.<sup>116</sup>

Chapter three is devoted to the knowledge about diseases of the eyelids.<sup>117</sup>

Its subjects are: the pathogenesis of these diseases (3.3–4); the twenty-one diseases of the eyelids and their characteristics: utsarigini<sup>118</sup> (3.9cd–10ab),<sup>119</sup> kumbhīkāpidakāś<sup>120</sup> (3.10cd–11ab),<sup>121</sup> pothakī<sup>122</sup> (3.11c-f),<sup>123</sup> vartmaśarkarā (= śarkarāvartman)<sup>124</sup>

(3.12),<sup>125</sup> aršovartman<sup>126</sup> (3.13),<sup>127</sup> śuṣkāṛśas<sup>128</sup> (3.14),<sup>129</sup> añjananāmikā (3.15)<sup>130</sup> bahalavartman<sup>131</sup> (3.16),<sup>132</sup> vartmabandha (= vartmāvabandhaka)<sup>133</sup> (3.17),<sup>134</sup> kliṣṭavartman<sup>135</sup> (3.18),<sup>136</sup> vartmakardama (= kardamavartman)<sup>137</sup> (3.19),<sup>138</sup> śyāvavartman<sup>139</sup> (3.20),<sup>140</sup> (pra)klinnavartman<sup>141</sup> (3.21),<sup>142</sup> a(pari)klinnavartman<sup>143</sup> (3.22),<sup>144</sup> vātahatavartman<sup>145</sup> (3.23),<sup>146</sup> arbuda<sup>147</sup> (3.24),<sup>148</sup> nimeṣa<sup>149</sup> (3.25),<sup>150</sup> śonitārśas<sup>151</sup> (3.26),<sup>152</sup> laṅgaṇa<sup>153</sup> (3.27),<sup>154</sup> bisavartman<sup>155</sup> (3.28),<sup>156</sup> and pakṣmakopa<sup>157</sup> (3.29–30).<sup>158</sup>

Chapter four is devoted to the knowledge about diseases of the white portion of the eye.

The eleven diseases of this group are enumerated and their characteristics described: prastāryarman<sup>159</sup> (4.4cd),<sup>160</sup> śuklārman<sup>161</sup> (4.5ab),<sup>162</sup> lohitārman (kṣatajā-rman)<sup>163</sup> (4.5cd),<sup>164</sup> adhimāṛṣārman<sup>165</sup> (4.6ab),<sup>166</sup> snāyvarman<sup>167</sup> (4.6cd),<sup>168</sup> śukti(kā)<sup>169</sup> (4.7ab),<sup>170</sup> arjuna<sup>171</sup> (4.7cd),<sup>172</sup> piṣṭaka<sup>173</sup> (4.8ab),<sup>174</sup> sirā jāla<sup>175</sup> (4.8cd),<sup>176</sup> sirāpīḍakā<sup>177</sup> (4.9ab),<sup>178</sup> and balāsagrathita<sup>179</sup> (4.9cd).<sup>180</sup>

Chapter five is devoted to the knowledge about diseases of the black portion of the eye.

The four diseases of this group are enumerated (5.3); the characteristics of savraṇaśukra<sup>181</sup> are described and the degrees of its curability, dependent on various factors (5.4–7);<sup>182</sup> the easily curable avraṇaśukra<sup>183</sup> is described, followed by a type of this disease that is curable with difficulty (5.8–9ab);<sup>184</sup> the characteristics of akṣipākāyaya<sup>185</sup> (5.9cd–10ab)<sup>186</sup> and ajakājāta<sup>187</sup> (5.10c–f)<sup>188</sup> are dealt with.

Chapter six is devoted to the knowledge about diseases of the whole eye.

The subjects dealt with are: the enumeration of the seventeen diseases belonging to this group (6.3–4); the diseases affecting the whole eye usually originate from abhiṣyanda,<sup>189</sup> which should therefore be treated as soon as it begins to develop (6.5); the characteristics of abhiṣyanda due to vāta,<sup>190</sup> pitta,<sup>191</sup> kapha,<sup>192</sup> and blood<sup>193</sup> (6.6–9);<sup>194</sup> these four types of abhiṣyanda, not treated properly and therefore aggravating, lead to the corresponding very painful types of adhimantha<sup>195</sup> (6.10);<sup>196</sup> the general characteristics of adhimantha (6.11);<sup>197</sup> the characteristics and symptoms of adhimantha due to vāta,<sup>198</sup> pitta,<sup>199</sup> kapha,<sup>200</sup> and blood<sup>201</sup> (6.12–19);<sup>202</sup> prognostic features: improperly treated adhīmantha leads to the loss of eyesight within seven days when it is due to kapha, within six days when due to vāta, within five days when due to blood, and instantaneously when due to pitta (6.20);<sup>203</sup> the characteristics of saśopha<sup>204</sup> and aśopha akṣipāka<sup>205</sup> (6.21–23ab);<sup>206</sup> neglect of adhimantha due to vāta may lead to hatādhimantha,<sup>207</sup> which is incurable (6.23c–f);<sup>208</sup> the pathogenesis of hatādhimantha (6.24);<sup>209</sup> the pathogenesis and symptoms of vātaparyaya<sup>210</sup> (6.25);<sup>211</sup> the characteristics of śuṣkāṁṣipāka<sup>212</sup> (6.26);<sup>213</sup> the pathogenesis and characteristics of anyatovāta<sup>214</sup> (6.27)<sup>215</sup> and amlādhyuṣita<sup>216</sup> (6.28);<sup>217</sup> the characteristics of sirotpāta<sup>218</sup> (6.29);<sup>219</sup> neglect of sirotpāta may lead to sirāprahaṛṣa<sup>220</sup> (6.30).<sup>221</sup>

Chapter seven is devoted to the knowledge about diseases of the dṛṣṭi.

The subjects dealt with are: the dṛṣṭi as described by ophthalmologists (naya-

nacintaka): its size is like that of a split lentil (*masūradala*); it is composed of pure parts (*prasāda*) of the five *mahābhūtas*, glows like a firefly (*khadyota*) or spark of fire, is covered by the outer *paṭala*, has the form of a hole, and has a tolerance for cold (7.3–4); the two groups of six diseases of the *dr̥ṣṭi*, including *timira*, which affect the *paṭalas* successively, will now be described (7.5); symptoms arising when the *paṭalas* are affected by the *doṣas*: affection of the first *paṭala* gives rise to blurred (*avyakta*) vision (7.6–7ab);<sup>222</sup> the disorders of vision by affection of the second *paṭala* (7.7cd–10);<sup>223</sup> the disorders of vision caused by affection of the third *paṭala*; these disorders, the details of which depend on the location of the *doṣa(s)* in the *dr̥ṣṭi*, are collectively called *timira*<sup>224</sup> (7.11–15c);<sup>225</sup> the gradual development of *līṅganāṣa*,<sup>226</sup> also called *nilikā* and *kāca*,<sup>227</sup> which results from an affection of the fourth *paṭala* (7.15d–18ab);<sup>228</sup> the characteristics of *timira* due to *vāta* (7.18cd–19ab), *pitta* (7.19cd–20ab), *kapha* (7.20cd–22ab),<sup>229</sup> blood (7.22cd–23ab), and concerted action of the *doṣas* (7.23cd–24);<sup>230</sup> the characteristics of the sixth type of *timira*,<sup>231</sup> called *parimlāyin*, caused by *pitta* in combination with (*mūrchita*) the fiery energy (*tejas*) of blood (7.25–26ab);<sup>232</sup> the colours of the six types of *līṅganāṣa*: ruddy (*aruṇa*) due to *vāta*, *parimlāyin*<sup>233</sup> or dark blue (*nīla*) due to *pitta*, white (*śīta*) due to *kapha*, red (*rakta*) due to blood, and variegated (*vicitra*) due to all the *doṣas* together (7.26cd–27);<sup>234</sup> a round patch (*maṇḍala*), arising from blood, resembling thick glass and glowing like fire, of a faint (*mlāyin*), bluish (*ānīla*) colour, occurs in the disease called *parimlāyin*; it sometimes happens that vision is (partly) restored thanks to a decrease in the amount of (excited) *doṣas* (7.28–29ab);<sup>235</sup> features of the round patch (*maṇḍala*) in *līṅganāṣa* due to *vāta*, *pitta*, *kapha*, blood, and all three *doṣas* together (7.29cd–33);<sup>236</sup> the other six diseases pertaining to the *dr̥ṣṭi* (7.34–35ab); the characteristic features of *pittavidagdhadr̥ṣṭi*<sup>237</sup> (7.35cd–37ab);<sup>238</sup> and *kaphavidagdhadr̥ṣṭi*<sup>239</sup> (7.37cd–38);<sup>240</sup> the aetiology and characteristics of *dhūmadarśin*<sup>241</sup> (7.39);<sup>242</sup> the characteristics of *hrasvajāḍya*<sup>243</sup> (7.40ab),<sup>244</sup> *nakulāndhya*<sup>245</sup> (7.40cd–41ab),<sup>246</sup> and *gambhīrikā*<sup>247</sup> (7.41cd–42ab);<sup>248</sup> out of the two exogenous (types of *līṅganāṣa*), *nimittaja* and *animittaja*, the former is caused by too much heat (*abhitāpa*) in the head<sup>249</sup> and characterized by the same features as *abhiṣyanda* (7.42cd–43ab);<sup>250</sup> the *animitta* type is the result of seeing gods, sages, *gandharvas*, celestial serpents (*mahoraga*), and other very bright (*bhāsvara*) objects; in this disorder, the *dr̥ṣṭi* is transparent and clear, with the colour of *vaidūrya* (7.43cd–44);<sup>251</sup> traumatic disorders of the *dr̥ṣṭi* (*abghhātahataḍr̥ṣṭi*) are described (7.45).

Chapter eight is devoted to classifications regarding the treatment of eye diseases.<sup>252</sup>

The subjects are: the eleven diseases curable by excision (*chedya*) (8.6),<sup>253</sup> scarification (*lekhya*) (8.7),<sup>254</sup> incision (*bhedya*) (8.8ab), and phlebotomy (8.8cd–9ab); diseases in which surgical measures (*śāstrapatana*) are contra-indicated (8.9cd–10); diseases amenable to palliative treatment (8.11ab); incurable diseases (8.11c–f).

Chapter nine is devoted to the management of *vātābhiṣyanda* (and other *vāta* disorders of the eyes).

The subjects dealt with are: general measures to be adopted in cases of (*abhi*)*ṣyanda*

and adhīmantha (due to vāta) (9.3–5ab);<sup>255</sup> local measures in these diseases (9.5cd–7ab); the diet to be recommended (9.7cd–8ab); drinks to be used after a meal (9.8cd–10ab); suitable errhines (9.10cd–11ab); the application of irrigation (seka, secana) and eyedrops (āścyotana) (9.11cd–13ab);<sup>256</sup> eyedrops for relieving pain (9.13cd–14ab); collyria (añjana) (9.14cd–15ab); the recipe of a guṭikāñjana (9.15cd–16ab); a snehāñjana (9.16cd); the same treatments should be adopted in cases of anyatovāta and mārutaparyaya (= vātaparyaya) (9.17); beneficial drinks in these two disorders (9.18–20ab);<sup>257</sup> the management of śuśkāḥṣipāka (9.20cd–24);<sup>258</sup> any eye disease caused by vāta should be treated on the lines described (9.25).

Chapter ten is devoted to the treatment of pittābhiṣyanda (and other disorders of the eye due to pitta).<sup>259</sup>

The subjects dealt with are: general measures to be adopted in cases of abhiṣyanda and adhīmantha due to pitta (10.3); medicinal substances to be used for tarpaṇa, irrigation (seka), and the four types of nasya (10.4–6ab); any drug counteracting pitta is useful, as well as an errhine prepared with ghee (kṣīrasarpis) (10.6cd); collyria (10.7–11ab);<sup>260</sup> eyedrops (10.11cd–12); the treatment of amlādhyaṣṭita and śukti (10.13–15);<sup>261</sup> the treatment of dhūmadarśin (10.16).

Chapter eleven is devoted to the treatment of kaphābhiṣyanda (and other disorders of the eye due to kapha).

The subjects dealt with are: the general management of abhiṣyanda and adhīmantha due to kapha (11.3–5ab); drugs to be used for sudation and in plasters (anulepa) (11.5cd–6ab); collyria which are useful in all eye diseases caused by kapha (11.6cd–10ab); kṣāras to be employed as collyria in cases of balāsagrathita (11.10cd–12); collyria to be employed in cases of piṣṭaka (11.13–15ab); a yogāñjana against praklinnavartman (11.15cd–16ab); a collyrium against itching (kaṇḍū) of the eye (11.16cd–17ab); a collyrium against itching and swelling (śopha) of the eye (11.17cd–18ab); generally, the management of (balāsagrathita, piṣṭaka and praklinnavartman) is the same as that of abhiṣyanda and adhīmantha (due to kapha) (11.18cd).

Chapter twelve is devoted to the treatment of raktābhiṣyanda (and other diseases of the eye due to blood).

The subjects dealt with are: the general treatment of four diseases caused by blood (rakta): the raktaja types of abhiṣyanda and adhīmantha, sirotpāta, and sirāharṣa (12.3–6ab); local therapeutic measures in these diseases (12.6c–f); the recipe of a plaster (pralepa) (12.7); analgesics (12.8–9); eyedrops (12.10); a collyrium useful in abhiṣyanda due to blood (12.11–12); a big type of varti used as a collyrium (12.13–14); collyria against sirotpāta (12.15–17ab) and sirāharṣa (12.17cd–18); the treatment of arjuna (12.19–24ab), avraṇaśukra (12.24cd–27);<sup>262</sup> savraṇaśukra (12.28–36ab), and ajakā (12.36cd–37); the general treatment of saśopha- and aśophapāka (12.38–39ab); collyria (12.39cd–42ab); a rasakriyā (12.42c–f); eyedrops and collyria against akṣipāka (12.43–44); the general treatment of pūyālasa (12.45); collyria against pūyālasa (12.46); the general treatment of praklinnavartman (12.47); eyedrops, col-



lyria and rasakriyās against praklinnavartman (12.48–50ab); a pratyāñjana<sup>263</sup> against praklinnavartman (12.50cd–51ab); collyria against aklinnavartman (12.51cd–53).

Chapter thirteen is devoted to the management of diseases in which scarification is indicated (lekhyaroga).

The subjects dealt with are: the technique of scarification, together with the preparation of the patient and the after-treatment (13.3–9ab); the signs of proper scarification (13.9cd–10ab); the signs of inadequate scarification, necessitating repetition of the procedure (13.10cd–12); the signs of excessive scarification; its treatment (13.13–14ab); special rules for particular groups among the nine diseases treatable by means of scarification<sup>264</sup> (13.14cd–16); the treatment of piḍakās (boils) of the eyelids (13.17–18).

Chapter fourteen is devoted to the management of diseases in which incision is indicated (bhedyaroga).

The subjects dealt with are: the treatment of bisagranthi (14.3–4), laḡaṇa (1.5–6ab), añjananāmikā (14.6cd–8ab), krimigranthi (14.8cd–9ab), and upanāha due to kapha (14.9cd–10ab); measures to be adopted prior to incision (14.10cd–11).

Chapter fifteen is devoted to the management of diseases in which excision is indicated (chedyaroga).

The subjects dealt with are: treatment preliminary to the excision (of an arman) (15.3); the surgical procedures<sup>265</sup> for the excision of (the five types of) arman (15.4–11ab);<sup>266</sup> after-treatment (15.11cd–14ab); analgesic preparations (15.14cd–16ab); removal of the remnants of an arman by means of lekhyāñjanas (caustic collyria) (15.16cd); the early stage of an arman should be treated like (the disease called) śukra (15.17); particular types of arman that should be excised (15.18); signs indicating properly performed excision (15.19); the treatment of sirājāla (15.20) and sirāpiḍakās (15.21); the treatment after excision (15.22); the treatment of parvañikā (15.23–25ab); a collyrium against arman, sirāpiḍakā, and sirājāla (15.25cd–28); the treatment of arśas,<sup>267</sup> śuṣkārśas, and arbuda (15.29–30); after-treatment in these disorders (15.31–33).

Chapter sixteen deals with the treatment of pakṣmakopa.<sup>268</sup>

Its subjects are: the surgical treatment of pakṣmakopa (16.3–5ab); after-treatment; the removal of the stitches (16.5cd–6); treatment by cauterization or the application of a caustic (16.7); epilation of the affected eyelid (16.8); other treatment measures (16.9).

Chapter seventeen is devoted to the management of diseases of the drṣṭi.

The subjects dealt with are: three (diseases of the drṣṭi) are curable<sup>269</sup> and three incurable;<sup>270</sup> six (diseases) are amenable to palliative treatment;<sup>271</sup> the treatment of dhūmadarśin has already been described<sup>272</sup> (17.3); the treatment of pittavidagdhadṛṣṭi and kaphavidagdhadṛṣṭi (17.4–6ab);<sup>273</sup> collyria<sup>274</sup> useful in these two diseases (17.6cd–27);<sup>275</sup> the six diseases amenable to palliative measures should be treated by bloodletting and evacuative (virecana) procedures (17.28); purificatory (saṁśodhana)

and pacificatory (saṃśamana) recipes useful in the various types of timira (17.29–32ab);<sup>276</sup> an errhine (nāvana) against all types of timira (17.32cd); errhines against timira caused by pitta (17.33ab), a combination of vāta and blood (17.33cd), and vāta (17.34); collyria against timira due to vāta (17.35); a pratyañjana against timira due to vāta (17.36ab); a collyrium against timira due to vāta when it has assumed its particular colour (17.36cd–37);<sup>277</sup> prescriptions against timira due to pitta (17.38); a kṣudrāñjana (17.39ab) and pratyañjana<sup>278</sup> (17.39cd) against timira due to pitta; another pratyañjana against timira due to pitta (17.40ab); a collyrium against timira due to pitta when it has acquired its particular colour<sup>279</sup> (17.40cd); a rasakriyāñjana<sup>280</sup> against timira due to pitta (17.41ab); the treatment of timira due to kapha (17.41cd–44ab); the treatment of timira caused by all the doṣas (17.44cd–46a); the treatment of timira caused by a trauma (kṣataja) and of the type called parimlāyin (17.46ab); the measures adopted in cases of abhiṣyanda are also to be used, dependent on the doṣa(s) involved (17.46cd); these measures are useful when the doṣas begin to manifest themselves (doṣodaya), but have not yet spread (through the eye)<sup>281</sup> (17.47ab); the collyria to be described in the kalpa<sup>282</sup> are also beneficial (17.47cd); general dietary habits which prevent the development of timira (17.48); specific articles of diet preventing timira (17.49); articles of diet which preserve and improve one's eyesight (17.50–51); phlebotomy is contra-indicated when timira has acquired a particular colour (17.52); timira is curable when it is located in the first paṭala and has not yet acquired a particular colour; when located in the second paṭala and possessing a colour, it is curable with difficulty; when located in the third paṭala, it is only amenable to palliative treatment (17.53); when a colour is already present, all the palliative measures described should be employed too, as well as bloodletting by means of leeches (17.54); surgical treatment of liṅganāśā due to kapha can successfully be carried out when the doṣa in the dṛṣṭi is not crescent-shaped (ardhendvākṛti) and does not resemble a drop of sweat (gharmāmbudindu) or a pearl (muktā); it should not be fixed (sthira), irregular (viṣama), thin in the centre, marked by lines (rājimant), very glossy (bahuprabha), associated with pain, or red (17.55–56); the proper weather conditions, the preparation of the patient and his positioning prior to surgical intervention; the technique of couching a cataract (liṅganāśa) due to kapha (17.57–64ab);<sup>283</sup> the signs indicating that the operation has been successful (17.64cd–65ab); in case of failure, the whole procedure should be repeated (17.65cd–66ab); after-treatment (17.66cd–70); the operation should not be performed in those cases where phlebotomy is contra-indicated (17.71); complications of couching (17.72–77); the complications arising from trying to dislocate an immature (taruṇa) cataract; the treatment required in such a case (17.78–81); the complications arising from the use of an improper śalākā; the properties of a proper śalākā (17.82–85ab); complications resulting from technical errors or an improper regimen (17.85cd–86); recipes against postoperative pain and redness (17.87–95); collyria to improve vision (17.96–99); the collyria to be described in the kalpa<sup>284</sup> are also recommended (17.100).

Chapter eighteen is devoted to the preparation of (externally applied) medicines (against eye diseases) (kriyākalpa).

The subjects dealt with are: the enumeration of therapeutic measures and preparations employed in eye diseases: tarpaṇa,<sup>285</sup> puṭapāka,<sup>286</sup> seka (irrigation), āścyotana (eyedrops),<sup>287</sup> and añjana (collyrium) (18.4); the technique of tarpaṇa; rules for various groups of diseases (18.5–12ab); the signs of proper, deficient and excessive tarpaṇa (18.12cd–15); treatment in cases of deficient and excessive tarpaṇa (18.16); indications and contra-indications for tarpaṇa (18.17–19ab); indications for puṭapāka (18.19cd–20ab); puṭapāka should be employed when the doṣas have been pacified and when the eyes can tolerate this type of preparation; puṭapāka is of three varieties: snehana (oleating), lekhaṇa (scarifying) and ropaṇa (healing) (18.20cd–21); indications for each of these three varieties (18.22); the ingredients of a snehana puṭapāka and the period of time during which the fluid should be retained (18.23); the same particulars with regard to a lekhaṇa (18.24–25) and ropaṇa (18.26) puṭapāka; procedures to be associated with puṭapāka of the snehana and lekhaṇa types are fumigation, oleation and sudation (18.27); puṭapāka should be employed for one, two or three days; the period during which a particular regimen should be observed (yantraṇā) is twice as long (18.28); rules for the period after treatment with tarpaṇa and puṭapāka (18.29); the treatment of complications due to improper application of tarpaṇa and puṭapāka (18.30); signs indicating proper, deficient and excessive treatment with puṭapāka (18.31–32); the method of preparing a puṭapāka<sup>288</sup> and the way of application (18.33–38); the bad effects of improper administration of tarpaṇa and puṭapāka (18.39–40); the merits of proper tarpaṇa and puṭapāka (18.41–42ab); the treatment of disorders due to improper use (18.42cd); particularities with regard to sudation and fumigation before and after tarpaṇa and puṭapāka (18.43); āścyotana (the application of eyedrops) is indicated when the disease is not very grave; seka (irrigation) is indicated in more serious cases (18.44); āścyotana and seka are of the same three varieties as puṭapāka (18.45ab);<sup>289</sup> the proper dosages of the three varieties of āścyotana (18.45cd–46ab); seka should be applied for a period twice as long as that for puṭapāka (18.46cd–47ab); the parts of the day suitable to the application of āścyotana and seka (18.47cd); the signs of proper and improper application of seka are like those of tarpaṇa (18.48ab); śirobasti cures very serious diseases and has the same effects as mūrdhataila<sup>290</sup> (18.48cd–49ab); the technique of applying a śirobasti: a bladder filled with medicated oil or ghee is tightly fastened over the scalp of the patient; it should be kept there for a period ten times as long as has been prescribed for tarpaṇa (18.49cd–51ab); the stage of the disease in which a collyrium (añjana) should be applied (18.51cd–52ab);<sup>291</sup> the three varieties of collyrium are: lekhaṇa, ropaṇa and prasādana<sup>292</sup> (18.52cd); the tastes to be employed against the doṣas in a lekhaṇa collyrium (18.53); the effects of a lekhaṇa collyrium (18.54); a ropaṇa collyrium should consist of drugs with an astringent or bitter taste and some oil; it restores the colour and invigorates the eyes (18.55); a prasādana collyrium should consist of drugs with a sweet taste and (much) oil; it soothes (prasādana) the doṣas affecting vision and is also beneficial as an oleating agent (18.56); these collyria should be employed in the morning, evening or night, dependent on the doṣa involved (18.57);<sup>293</sup> the three forms of collyrium: guṭikā (pill), rasa (= rasakriyā: inspissated juice) and cūrṇa (powder);<sup>294</sup> their strength decreases in the mentioned order (18.58); the sizes of lekhaṇa, ropaṇa and prasādana guṭikās (18.59); the dose of a rasāñjana<sup>295</sup>

is the same as that of a varti<sup>296</sup> (18.60ab); the doses of a collyrium in the form of a powder are two, three or four śalākās, for the lekhaṇa, ropaṇa and prasādana varieties respectively (18.60cd); the materials for the containers (bhājana)<sup>297</sup> and the rods (śalāka) (for applying a collyrium)<sup>298</sup> (18.61–62ab);<sup>299</sup> requirements as to the form, measurements, etc., of a śalākā (18.62cd–63); the technique of applying a collyrium (18.64–65); technical errors to be avoided (18.66–67ab); after observing the proper action of a collyrium, the eye should be washed (prakṣāḥana) with water, and a pratyāñjana applied (18.67cd–68ab); contra-indications for a collyrium and the disorders resulting from neglect of these rules (18.68cd–69); complications (vyāpad) brought about by improper application of collyria (18.70–74ab); the treatment of these complications (18.74cd–75ab); signs indicating an adequate, excessive and deficient application of a lekhaṇa collyrium; treatment in cases of excessive or deficient application (18.75cd–78); signs indicating an adequate or excessive application of prasādana and ropaṇa collyria; treatment in cases of excessive application (18.79–81); deficient application of snehana (= prasādana) and ropaṇa collyria produces no effect at all (18.82); the preparation of a cūṛṇāñjana for royal use, which makes a king dear to all his subjects, invincible, and free from eye diseases (18.84–93);<sup>300</sup> another collyrium, called bhadrodaya, fit for royal use (18.94–97);<sup>301</sup> some more recipes for collyria (18.98–102); an analgesic collyrium (18.103–104); a collyrium for general use (18.105); piṇḍāñjanas<sup>302</sup> should be prepared and used in the same way as rasakriyāñjanas (18.106).

Chapter nineteen is devoted to the management of injuries to the eye (nayanābhigāta) (and eye diseases in children).

The subjects dealt with are: general symptoms and treatment (19.3–4); the general measures should be employed when the injury is still fresh (sadyohata);<sup>303</sup> in a later stage, the treatment should be like that of abhiṣyanda; the pain of a minor trauma disappears by the application of warm breath (āsyabāṣpa) (19.5); prognostic features of eye injuries (19.6–7ab); the treatment of cases in which the eyeball is pushed inside or protruding (19.7cd–8ab); the seventy-six eye diseases described occur in both children and adults, but one additional and distinct disease, kukūṇaka, affects the eyelids of children only; it is caused by vitiated breastmilk, kapha, vāta, pitta, and blood (19.8cd–9ab); the symptoms and treatment of kukūṇaka (19.9cd–10);<sup>304</sup> treatment by the induction of vomiting (19.11–12); washing (paridhāvana), irrigation (avasecana) and eyedrops (āścyotana) in cases of kukūṇaka (19.13); collyria against kukūṇaka (19.14); gutikāñjanas (19.15); the treatment of śukra and kaphābhiṣyanda in children (19.16); the importance of a thorough study of the medical science (19.17–20).

Chapter twenty is devoted to the knowledge concerning diseases of the ears (kaṃṣaroga).

The subjects dealt with are: the twenty-eight diseases of the ears;<sup>305</sup> kaṃṣāśūla,<sup>306</sup> kaṃṣapraṇāda,<sup>307</sup> bādhirya,<sup>308</sup> kaṃṣakṣveḍa,<sup>309</sup> kaṃṣarāva,<sup>310</sup> kaṃṣakaṇḍū,<sup>311</sup> kaṃṣavarcas,<sup>312</sup> kṛmikaṃṣa,<sup>313</sup> pratīnāha,<sup>314</sup> the two types of vidradhi,<sup>315</sup> kaṃṣapāka,<sup>316</sup> pūtikaṃṣa,<sup>317</sup> the four types of arśas,<sup>318</sup> the seven types of arbuda,<sup>319</sup> and the four types of śopha<sup>320</sup> (20.3–5); the pathogenesis and symptomatology of kaṃṣāśūla

(20.6),<sup>321</sup> karṇapraṇāda (20.7),<sup>322</sup> bādhirya (20.8),<sup>323</sup> karṇakṣveḍa (20.9),<sup>324</sup> karṇasrāva (20.10), karṇakaṇḍū (20.11ab), karṇavarcas (20.11cd), karṇapratīnāha (20.12), kṛmikarṇaka (20.13), the two types of vidradhi (20.14), karṇapāka (20.15ab),<sup>325</sup> and pūtikarṇa (20.15cd–16ab),<sup>326</sup> the features of arśas,<sup>327</sup> śopha<sup>328</sup> and arbuda<sup>329</sup> have already been described (20.16c–f).

Chapter twenty-one is devoted to the management of ear diseases.<sup>330</sup>

The subjects dealt with are: general measures (21.3); the common treatment of karṇaśūla, karṇapraṇāda, bādhirya, and karṇakṣveḍa<sup>331</sup> (21.4–5); the treatment of karṇaśūla due to kapha and vāta by means of nāḍīsveda (21.6–7); piṇḍasveda in cases of karṇaśūla (21.8); a warm medicated oil against karṇaśūla (21.9–10);<sup>332</sup> fumigation in cases of karṇaśūla (21.11);<sup>333</sup> dietary rules (21.12ab); the use of śatapākabalātaila<sup>334</sup> (21.12cd–13ab); several recipes for karṇapūraṇa<sup>335</sup> (21.13cd–19); the preparation of dīpikātaila<sup>336</sup> and its use in cases of karṇaśūla (21.20–22); recipes for karṇapūraṇa (21.23–26);<sup>337</sup> more recipes for karṇapūraṇa (21.27–33); the treatment of karṇaśūla due to blood (21.34); the treatment of bādhirya (21.35–39ab); the general treatment of karṇasrāva, pūtikarṇa, and kṛmikarṇa (21.39cd–41ab);<sup>338</sup> the specific treatment of karṇasrāva (21.41cd–49ab),<sup>339</sup> pūtikarṇa (21.49cd–51ab), and kṛmikarṇa (21.51cd–53); the treatment of karṇakṣveḍa (21.54ab), karṇavidradhi (21.54cd), karṇaviṭka<sup>340</sup> (21.55), karṇakaṇḍū (21.56), karṇapratīnāha (21.57), and karṇapāka (21.58ab); the removal of kīṭas, cerumen, and dirt from the auditory canal (21.58cd–59ab); the treatment of the remaining ear diseases has already been described (21.59cd).

Chapter twenty-two is devoted to the knowledge concerning diseases of the nose (nā-sāroga).

The subjects dealt with are: the enumeration of the thirty-one diseases affecting the nose (22.3–5); the symptoms of apīnasa,<sup>341</sup> which is caused by vāta and kapha, and has features in common with pratiśyāya (22.6–7ab);<sup>342</sup> the pathogenesis and symptoms of pūtināsa (22.7cd–8ab),<sup>343</sup> nāsikāpāka (22.8cd–9ab),<sup>344</sup> nāsāraktapitta (22.9cd),<sup>345</sup> pūyarakta (22.10),<sup>346</sup> the two types<sup>347</sup> of kṣavathu (22.11–13ab),<sup>348</sup> bhramśathu (22.13cd–14ab),<sup>349</sup> dīpta (22.14cd–15ab),<sup>350</sup> nāsāpratīnāha (22.15cd–16ab),<sup>351</sup> nāsā-parisrāva (22.16cd–17ab),<sup>352</sup> and nāsāśoṣa (22.17cd–18ab);<sup>353</sup> nāsārśas<sup>354</sup> and nāsā-śopha<sup>355</sup> are caused by each of the doṣas separately and by the three doṣas collectively (22.18cd); a seventh type of arbuda (of the nose),<sup>356</sup> caused by all the doṣas, is added, according to the śālākya treatises, (to the usual six types)<sup>357</sup> (22.19ab); pratiśyāya, a disease of five types, will be described later<sup>358</sup> (22.19cd); thus, the thirty-one diseases of the nose have been described (22.20ab); a big mass, enclosed within a capsule (koṣa), and present within the nasal passages, is called an arbuda (22.20cd); nāsāśopha possesses all the characteristics of śopha, but is confined to the nasal passages; nāsārśas should be diagnosed according to the characteristics of arśas as described in the Nidānasthāna<sup>359</sup> (22.21).

Chapter twenty-three is devoted to the management of diseases of the nose.

The subjects dealt with are: the treatment of apīnasa and pūtināsa<sup>360</sup> (23.3–5ab),

nāsāpāka (23.5cd–6ab),<sup>361</sup> raktapitta and pūyarakta (23.6cd–7ab),<sup>362</sup> kṣavathu<sup>363</sup> and bhraṃśathu (23.7cd–8ab), dīpta (23.8cd), nāsānāha<sup>364</sup> (23.9), nāsārāva<sup>365</sup> (23.10), and nāsāśoṣa (23.11);<sup>366</sup> the remaining diseases of the nose<sup>367</sup> should be treated as described for diseases of the nose in general (23.12).<sup>368</sup>

Chapter twenty-four is devoted to the management of pratiśyāya.<sup>369</sup>

The subjects dealt with are: the aetiology of pratiśyāya (24.3); its pathogenesis (24.4)<sup>370</sup> and prodromes (24.5);<sup>371</sup> the symptoms of pratiśyāya due to vāta (24.6–7ab),<sup>372</sup> pitta (24.7cd–8),<sup>373</sup> kapha (24.9–10ab),<sup>374</sup> all three doṣas (24.10cd–11), and blood (24.12–14ab);<sup>375</sup> the symptoms of duṣṭapraśyāya, more difficult to cure than pratiśyāya (24.14cd–16ab);<sup>376</sup> complications of pratiśyāya (24.16cd–17); the treatment of all types of pratiśyāya (24.18–21); the general treatment of pīnasa<sup>377</sup> (24.22–23); the treatment of pīnasa caused by a combination of vāta and kapha (24.24); the treatment of pratiśyāya due to vāta (24.25–26ab), pitta and blood (24.26cd–30ab), kapha (24.30cd–33), and concerted action of all the doṣas (24.34–42).<sup>378</sup>

Chapter twenty-five is devoted to the knowledge of diseases of the head (śīroroga).

The subjects dealt with are: the eleven diseases of the head: those caused by vāta, pitta, kapha, all three doṣas, blood, kṣaya, and parasites (krimi), and the diseases called sūryāvarta, anantavāta, ardhāvabhedaka, and śaṅkhaka (25.3–4); the symptomatology of śīroroga due to vāta (25.5),<sup>379</sup> pitta (25.6),<sup>380</sup> kapha (25.7),<sup>381</sup> all three doṣas (25.8ab),<sup>382</sup> and blood (25.8cd); the aetiology and symptomatology of śīroroga caused by kṣaya (decrease) of fatty tissue (vasā) and balāsa (= kapha)<sup>383</sup> (25.9–10ab); the symptoms of śīroroga caused by parasites (25.10cd–11ab);<sup>384</sup> the symptoms of sūryāvarta,<sup>385</sup> caused by all the doṣas together and very difficult to cure (25.11cd–13ab);<sup>386</sup> the symptoms of anantavāta,<sup>387</sup> caused by all three doṣas collectively (25.13cd–15ab);<sup>388</sup> the symptoms of ardhāvabhedaka,<sup>389</sup> caused by all three doṣas collectively (25.15cd–16ab);<sup>390</sup> the symptoms of śaṅkhaka,<sup>391</sup> which is caused by vāta, pitta, kapha, and blood, and is incurable (25.16cd–18).<sup>392</sup>

Chapter twenty-six is devoted to the management of diseases of the head.

The subjects dealt with are: the treatment of śīroroga caused by vāta (26.3–11),<sup>393</sup> pitta<sup>394</sup> and blood (16.12–18ab), kapha (26.18cd–23),<sup>395</sup> all three doṣas (26.24),<sup>396</sup> kṣaya (26.25–26ab), and parasites (26.26cd–30ab);<sup>397</sup> the general treatment of sūryāvarta (26.30cd–31ab) and ardhābhedaka<sup>398</sup> (26.31cd); the specific treatment of sūryāvarta<sup>399</sup> and ardhāvabhedaka<sup>400</sup> (26.32–35); the same measures are useful in śīroroga due to kapha (26.36ab); the treatment of anantavāta (26.36cd–38ab)<sup>401</sup> and śaṅkhaka (26.38cd–41);<sup>402</sup> general rules for the treatment of diseases of the head (26.42–44ab);<sup>403</sup> thus, the aetiology and treatment of the seventy-six diseases of the eyes, twenty-eight diseases of the ears, thirty-one diseases of the nose, eleven diseases of the head, and sixty-seven diseases of the mouth, oral cavity and throat<sup>404</sup> have been dealt with; these are the diseases of the upper main part of the body (uttamāṅga), described according to their number, characteristics and treatment (16.44cd–46).

Chapter twenty-seven is devoted to the knowledge about the specific features (ākṛti) of the nine grahas.<sup>405</sup>

The names of these nine grahas are: Skanda,<sup>406</sup> Skandāpasmāra, Śakunī, Revatī, Pūtanā,<sup>407</sup> Andhapūtanā, Śītapūtanā, Mukhamaṇḍikā, and Naigameṣa, also called Pitṛ-graha (27.4–5).<sup>408</sup>

These grahas hurt children when wet-nurse or mother do not observe the prescribed code of conduct, when cleanliness is neglected, when auspicious rituals (maṅgala) are not performed, and when the children themselves are upset (trasta), anxious (hr̥ṣṭa), scolded (tarjita), or beaten (tāḍita).

The aim of the grahas is to obtain worship (pūjā). They possess supernatural powers (aiśvarya), can assume various forms, and enter a child's body without being seen (27.6–7ab). Their characteristic signs will be described according to tradition (27.7cd).

The chapter proceeds with descriptions of the characteristic features of children afflicted by Skanda (27.8),<sup>409</sup> Skandāpasmāra<sup>410</sup> (27.9),<sup>411</sup> Śakunī (27.10),<sup>412</sup> Revatī (27.11),<sup>413</sup> Pūtanā (27.12),<sup>414</sup> Andhapūtanā (27.13),<sup>415</sup> Śītapūtanā (27.14),<sup>416</sup> Mukhamaṇḍikā (27.15),<sup>417</sup> and Naigameṣa (27.16).<sup>418</sup>

The signs indicating incurability or curability are mentioned (27.17–18ab). The general rules regarding treatment are dealt with; these rules consist largely of ritual acts, accompanied by a mantra (27.18cd–21).

Chapter twenty-eight deals with the treatment of children attacked by Skanda.

Measures described are: sprinkling (pariśecana) with a particular decoction (28.3), inunction (abhyāṅga) with a medicated oil (28.4), the oral administration of a medicated ghee (28.5), fumigation (28.6), the wearing of particular garlands (28.7), the offering (bali) of particular objects to Skanda (28.8), the performance of a ritual (28.9), and the recitation of particular mantras (28.10–14).

Chapter twenty-nine deals with the treatment of afflictions caused by Skandāpasmāra.

Measures described are: sprinkling with a decoction (29.3), inunction with a medicated oil (29.4), the oral administration of medicated ghees (29.5), fumigation (29.6), the wearing of particular garlands (29.7ab), offerings and rituals (29.7cd–8), and a mantra (29.9).

Chapter thirty describes the following measures against afflictions caused by Śakunī: sprinkling with a decoction (30.3), inunction (30.4ab), a plaster (pradeha) (30.4cd–5ab), the powders (cūrṇa) and beneficial articles of diet used in the treatment of sores (vraṇa) (30.5cd), the same fumigations as those against Skanda (30.6ab), (the wearing of) particular drugs (as charms) (30.6cd–7ab), offerings (bali) and a ritual bath (30.7cd–8), the administration of the same medicated ghee as that against Skanda (30.9ab), the worship (pūjā) of Śakunī by offering auspicious flowers (30.9cd), and the recitation of mantras (30.10–11).

Chapter thirty-one describes the following measures against afflictions caused by Revatī: sprinkling with decoctions (31.3), inunction (31.4), the administration of a med-

icated ghee (31.5), a plaster (31.6ab), fumigation (31.6cd–7ab), the wearing of a particular necklace (rucaka) (31.7cd–8ab), offerings and a ritual bath (31.8cd–9), and the recitation of mantras (31.10–11).<sup>419</sup>

Chapter thirty-two deals with measures against afflictions caused by Pūtanā. They consist of: sprinkling (32.3), inunction (32.4), a medicated ghee (32.5), fumigations (32.6–7), the wearing of particular drugs (as charms) (32.8ab), offerings and a ritual bath (32.8cd–9), and the recitation of mantras (32.10–11).

Chapter thirty-three describes the following measures against afflictions caused by Andhapūtanā: sprinkling with a decoction (33.3ab), inunction (33.3cd–4ab), a medicated ghee (33.4cd–5ab), a plaster (pradeha) (33.5cd), fumigation (33.6),<sup>420</sup> drugs to be worn (33.7ab), offerings and a ritual bath (33.7cd–8), and the recitation of a mantra (33.9).

Chapter thirty-four describes the following measures against afflictions caused by Śtapūtanā: sprinkling (34.3), inunction (34.4), a medicated ghee (34.5), fumigation (34.6), particular drugs to be worn (34.7ab), offerings and a ritual bath (34.7cd–8), and the recitation of a mantra (34.9).

Chapter thirty-five describes the following measures against afflictions caused by Mukhamāṇḍikā:<sup>421</sup> sprinkling (35.3), inunction (35.4), a medicated ghee (35.5), fumigation (35.6ab), the wearing of the tongues of particular animals (as charms) (35.6cd),<sup>422</sup> offerings (35.7–8ab),<sup>423</sup> and a ritual bath accompanied by a mantra (35.8cd–9).

Chapter thirty-six describes the following measures against afflictions caused by Naigameṣa: sprinkling (36.3), inunction (36.4), medicated ghees (36.5), the wearing of particular drugs (as charms) (36.6ab), the same utsādana (massage with a medicated oil) as for disorders caused by Skandāpasmāra (36.6cd), fumigation (36.7), a fumigation to be employed against afflictions caused by the nine grahas (36.8), offerings and a ritual bath (36.9–10), and the recitation of a mantra (36.11).

Chapter thirty-seven is about the origin (utpatti) of the grahas (and related subjects).

The nine grahas who afflict children are endowed with radiance (śrī), possess a divine body, and are either female or male (37.3). They were created by Kṛttikā,<sup>424</sup> Umā,<sup>425</sup> Agni<sup>426</sup> and Śūlin<sup>427</sup> in order to guard the newborn Guha,<sup>428</sup> although, while staying in the Śaravaṇa,<sup>429</sup> he was protected by his own fiery energy (ātmatejas) (37.4). The female grahas described are of a rājas or tāmasa character and partake of the nature of Gaṅgā,<sup>430</sup> Umā and the Kṛttikās (37.5).

Naigameṣa, who has the face of a ram (meṣa), was created by Pārvatī<sup>431</sup> as the protector and companion of Guha (37.6); Skandāpasmāra, also called Viśākha, and glowing like fire, was created by Agni as a companion of Skanda<sup>432</sup> (37.7); Skanda, also called Kumāra, was created by Tripurārī (37.8),<sup>433</sup> this god, born from Rudra and Agni,



is frolicsome like a child and cannot possibly be intent on bad actions; it is therefore lack of knowledge that makes some medical authorities (dehacintaka),<sup>434</sup> misled by the similarity of the names, assume that the graha called Skanda is identical with the deity called Kumāra (i.e., Skanda) (37.9–10).

A mythological story follows, telling that the grahas, who waited upon Skanda, the chief of the heavenly army, asked him for means of subsistence; Skanda referred this question to Śiva, who gave the grahas, as their sphere of influence, the children of parents who do not behave properly; this explains that the grahas, eager for ample subsistence and worship, afflict children (37.11–20).

Afflictions by grahas are difficult to cure; disabilities (vaikalya), and even death, result from an attack by the graha Skanda, who is the most dreadful among them (37.21–22ab). Attacks by other grahas are also incurable if they present all the symptoms (37.22cd).

Chapter thirty-eight is devoted to the management of gynaecological disorders (yonivyāpad).<sup>435</sup>

The subjects dealt with are: the aetiology and pathogenesis of yonivyāpad; the general causes of the twenty types of yonivyāpad, consisting of improper behaviour (mithyācāra), corrupted ārtava, bījadoṣa, and fate (daiva) (38.3–6ab);<sup>436</sup> the types of yonivyāpad arising from vāta are:<sup>437</sup> udāvartā,<sup>438</sup> vandhyā,<sup>439</sup> viplutā,<sup>440</sup> pariplutā,<sup>441</sup> and vātālā;<sup>442</sup> those arising from pitta are: rudhirakṣarā,<sup>443</sup> vāminī,<sup>444</sup> sraṁsinī,<sup>445</sup> putraghnī,<sup>446</sup> and pittālā;<sup>447</sup> those arising from kapha are: atyānandā,<sup>448</sup> kaṁpiṇī,<sup>449</sup> the two kinds of caraṇā,<sup>450</sup> and śleṣmalā;<sup>451</sup> those arising from all three doṣas are: ṣaṇḍā,<sup>452</sup> phalini,<sup>453</sup> mahatī,<sup>454</sup> sūcīvaktrā,<sup>455</sup> and sarvajā<sup>456</sup> (38.6cd–9ab); the characteristics of the vāta types; other painful sensations (vedanā) due to vāta are also present (38.9cd–11); the characteristics of the pitta types, which also present other symptoms due to pitta (38.12–14); the characteristics of the kapha types, which present other symptoms attributable to kapha (38.15–17); the characteristics of the types caused by all the doṣas, which also present other symptoms caused by them and which are incurable (38.18–20); general treatment (38.21);<sup>457</sup> the treatment of yonivyāpad due to vāta (38.22–24ab),<sup>458</sup> pitta (38.24cd–26),<sup>459</sup> and kapha (38.27–29ab);<sup>460</sup> some general prescriptions (38.29cd–30); other procedures that may be employed (38.31–32ab); disorders caused by immature and premature labour (apaprajātāroga) should be treated as described (38.32cd).

Chapter thirty-nine is devoted to fevers and their management.<sup>461</sup>

The chapter opens with questions by Suśruta and his fellow students to Dhanvantari, who is requested to give a more detailed account of the complications (upaḍrava) occurring in patients with sores (vraṇa), a subject discussed only briefly in the preceding sections of the treatise (39.3–7). Dhanvantari, who complies, begins with an exposition on fever (jvara), because this is the king among the host of diseases (39.8).<sup>462</sup>

The subjects dealt with in the first part of the chapter are: fever owes its origin to the fire of Rudra's wrath; it afflicts all living creatures and is known by different names (dependent on the type of creature or substance affected) (39.9);<sup>463</sup> as a disorder

der that may take possession of a living being from birth until death,<sup>464</sup> it is regarded as the king among all diseases (39.10); only gods and human beings are able to endure fever, while all other living creatures perish by it (39.11–13ab); the main characteristics of fever consist of the simultaneous occurrence of absence of perspiration (svedāvarodha), a general sense of heat (saṃtāpa), and an ache of all the parts of the body (sarvāṅagrahaṇa) (39.13cd–14ab);<sup>465</sup> fever has various causes and is of eight types: caused by one of the doṣas singly, by a combination of two doṣas, by all the doṣas collectively, and by exogenous (āgantū) factors (39.14cd–15ab);<sup>466</sup> the pathogenesis of fever (39.15cd–19ab);<sup>467</sup> aetiological factors (39.19cd–22);<sup>468</sup> the pathophysiology of the rise of temperature and the obstruction to the flow of perspiration (39.23–24);<sup>469</sup> the general and specific prodromes (39.25–28);<sup>470</sup> the symptoms of fever due to vāta (39.29–30),<sup>471</sup> pitta (39.31–32),<sup>472</sup> kapha (39.33–34),<sup>473</sup> and concerted action (saṃnipāta) of the doṣas (39.35–38c);<sup>474</sup> the symptoms of a specific type of saṃnipāta fever, called abhinyāsa;<sup>475</sup> others call it hataujas<sup>476</sup> (39.38–41ab); a saṃnipāta fever is difficult to cure; according to others, it is incurable (39.41cd);<sup>477</sup> a saṃnipāta fever associated with sleepiness should be known as abhinyāsa, associated with decrease (of bodily constituents) as hataujas, and associated with inertia of the limbs (saṃnyastagātra) as saṃnyāsa (39.42);<sup>478</sup> the symptomatology of a fever characterized by an obstruction (nirodha) to ojas, caused by aggravation of pitta and vāta (39.43–45ab);<sup>479</sup> (a saṃnipāta fever) aggravates again on the seventh, tenth, or twelfth day, followed by a favourable turn (praśama) or death (39.45cd–46ab);<sup>480</sup> the symptoms of fevers due to the combined action of two doṣas:<sup>481</sup> vāta and pitta, vāta and kapha, pitta and kapha (39.46cd–50);<sup>482</sup> even a very small amount of a doṣa may increase in patients, released from fever and still weak, when they indulge in unwholesome diet and behaviour; this doṣa, reaching the seats (of kapha) successively, staying at each seat for one day and night, and ultimately arriving at the āmāśaya, causes the fevers called satata, anyedyuṣka (quotidian), tryākhyā (tertian), cātūrtha (quartan), and pralepaka (39.51–53);<sup>483</sup> the slow fever called pralepaka, which leads to desiccation of the elements of the body; it is very troublesome and extremely difficult to cure (39.54);<sup>484</sup> reversed types of irregular (viśama)<sup>485</sup> fevers arise when the doṣa<sup>486</sup> stays in two, three, or four seats of kapha;<sup>487</sup> these fevers are difficult to cure (39.55); some assume that an outside factor or inherent nature (svabhāva) produces irregular fevers; usually, however, an exogenous (āgantū) factor is secondarily involved (anubandha) in an irregular fever (39.56);<sup>488</sup> tṛtīyaka and caturthaka fever are characterized by a predominance of vāta;<sup>489</sup> the fever occurring in lowlands at the foot of mountains (aupatyaka),<sup>490</sup> as well as the fever caused by (the abuse of) alcoholic drinks, are due to pitta; kapha is the predominant doṣa in the fevers called pralepaka and vātabalāsaka;<sup>491</sup> irregular fevers with fainting (mūrchā) as a secondary development (anubandha) usually arise from a combination of two doṣas (39.57–58); kapha and vāta, staying in the skin, generate a fever beginning with shivering; later, after the pacification of these two (doṣas), pitta brings about a burning sensation; pitta, staying in the skin, causes an intense burning sensation at the onset (of fever); later, after the pacification of pitta, shivering arises due to kapha and vāta; these two fevers, beginning with a burning sensation or shivering, are caused by a combination of two doṣas; out of the two, the fever beginning

with a burning sensation is troublesome and difficult to cure (39.59–61); the same applies to protracted (*prasakta*) fevers of traumatic or mental origin (39.62ab); an irregular fever may become manifest during any of the six parts of day and night; actually, it never leaves the body completely, as is evident from symptoms like languor (*glāni*), a feeling of heaviness, and loss of weight (39.62cd–64ab); during periods without bouts of fever, the disease appears to be gone, but this is due to its being hidden within the bodily elements and to other factors; indulgence in unwholesome diet and behaviour makes it flare up again, and causes a new attack when one of the bodily elements has been reached (39.64cd–66);<sup>492</sup> *satata* (continuous) fever resides in *rasa* and blood, *anyedyuṣka* in muscular tissue, *ṛtīyaka* in fatty tissue, *cāturthaka* in the bones and bone marrow;<sup>493</sup> the last mentioned fever is serious, may terminate fatally, and brings on a mixture of disorders (39.67–68ab); some are of the opinion that irregular fevers arise from possession (*abhiṣāṅga*) by *bhūtas* (39.68cd);<sup>494</sup> the fever that continues for a period of seven, ten or twelve days is known as *saṃtata*;<sup>495</sup> *satataka* appears twice in a day and night; *anyedyuṣka* appears once within twenty-four hours, *ṛtīyaka* on alternate days, and *caturthaka* on every fourth day<sup>496</sup> (39.69–71ab); the appearance and subsidence of bouts of fever caused by the *doṣas*, which are impelled by *vāta*, are compared to the tidal movements of the sea (39.71cd–75ab); traumatic fevers should be treated according to the *doṣa(s)* involved (39.75cd–76ab);<sup>497</sup> the symptoms of fever caused by poisoning (39.76cd–77ab);<sup>498</sup> the symptoms of fever provoked by the smell of herbs (*oṣadhīgandha*) (39.77cd);<sup>499</sup> the symptoms of fevers caused by sexual desire (*kāma*) (39.78), fear and grief (39.79ab), magic (*abhicāra*) and curses (*abhiṣāpa*) (39.79cd), and possession by malevolent beings (*bhūtābhiṣāṅga*) (39.80ab);<sup>500</sup> *vāta*, when excited by fatigue, wasting (of bodily constituents) or a trauma, may pervade the whole body and give rise to a violent fever (39.80cd–81ab); fevers resulting from other diseases, *vidāha*,<sup>501</sup> exogenous factors, etc., do not present other symptoms than those which are characteristic of one or more of the *doṣas* (39.81cd–82);<sup>502</sup> the symptoms presented by fevers after having reached and affected *rasa*, blood, muscular tissue, fatty tissue, bones, bone marrow, and semen (39.83–90ab);<sup>503</sup> the involvement of one or more of the *doṣas* in these fevers should be ascertained by means of the signs characteristic of them (39.90cd–92ab); the characteristics of a deep-seated (*gambhīra*) fever (39.92cd–93ab);<sup>504</sup> features indicating incurability of a fever (39.93cd–94ab);<sup>505</sup> slight, moderate and severe (excitement of the) *doṣas* leads to attacks of fever during three, seven or twelve days; the possibility of successful treatment diminishes in the mentioned order (39.94cd–95ab); fever is like *kāla* (time as a devouring factor), *Yama* (i.e., the god of death), *niyati* (fate) and death itself; someone who has got rid of it should be regarded as having gained rebirth (39.95cd–96ab).

The second part of the chapter, devoted to treatment, deals with the following subjects: treatment during the prodromal stage (39.97–99); the difference between symptoms and prodromes is like that between fire and smoke (39.100ab); fasting (*apatarpaṇa* or *laṅghana*) is the most important therapeutic measure after manifestation of the symptoms, but emetics should be administered when the *doṣa* stays in the *āmāśaya*; the proper duration of fasting; contra-indications; the beneficial effects of fasting; the signs of adequate and excessive fasting (39.100cd–106ab);<sup>506</sup> the indications for

administering warm water (39.106cd–108ab);<sup>507</sup> indications for a particular cooled down decoction (39.108cd–109ab);<sup>508</sup> the antipyretic effects of a medicated gruel (peyā) (39.109cd–110ab);<sup>509</sup> general indications for kaṣāyas; kaṣāyas which are useful in fevers due to vāta, pitta, kapha, or a combination of two doṣas; contra-indications for kaṣāyas (39.110cd–114);<sup>510</sup> some general characteristics of fevers with immature (āma) and mature (pakva) doṣas (39.115a–d);<sup>511</sup> the characteristics of maturity of the doṣas, which means that medicinal treatment may be initiated (39.115e–h); a divergent view on the recognition of maturity (39.116ab); the characteristics of an immature fever (āmajvara) (39.116cd–119ab);<sup>512</sup> medicinal treatment may begin seven days after the onset of fever according to some authorities, whereas others hold the view that this period should cover ten days (39.119cd–120ab);<sup>513</sup> exceptions to this rule (39.120cd–121ab); special directions for eliminative treatment in immature and mature fevers (39.121cd–125);<sup>514</sup> the preliminary treatment (prākharman) should successively consist of: emesis (vamana), an āsthāpana enema, purgation (virecana), and evacuation of the head (śirovirecana) (39.126); emesis is the most important measure in fevers caused by kapha, purgation in those caused by pitta, an enema in those caused by vāta, evacuation of the head when the head is full of phlegm (39.127–129); treatments for special cases (39.130–132); the treatment of residual doṣas after eliminative measures (39.133–134ab); fasting is always to be recommended in strong patients (39.134cd); dietary rules for patients with various types of fever (39.135–156ab);<sup>515</sup> things to be avoided by a patient with fever (39.156cd–159);<sup>516</sup> rules for a patient who has just recovered from fever (39.160–162);<sup>517</sup> the importance of bed rest during fever (39.163); indications for purificatory measures after subsidence of a fever (39.164); an emaciated patient with fever should never rashly be given a bath (39.165); all fevers should be treated with measures counteracting their causes (39.166); women who get fever due to an abnormal delivery or during lactation should be given a treatment that appeases the doṣa(s) involved (39.167); appeasing (saṃśamanīya) kaṣāyas to be employed against fever by vāta (39.168–175ab) and pitta (39.175cd–178); preparations against complaints associated with fever due to pitta, such as thirst, a burning sensation,<sup>518</sup> desiccation of mouth and throat, and a bad taste in the mouth (vairasya) (39.179–186ab); kaṣāyas against fever caused by kapha (39.186cd–191), kapha and vāta (39.192–195ab), pitta and kapha (39.195cd–199ab), vāta and pitta (39.199cd–201ab), and all three doṣas (39.201cd–211ab); the treatment of irregular (viṣama) fevers (39.211cd–218ab); a medicated ghee against chronic (jīṛṇa) fever and other disorders (39.218cd–221ab); the preparation and indications of guḍūcyādighṛta (39.221cd–223ab),<sup>519</sup> kalaśyādighṛta (39.223cd–226ab), paṭolādighṛta (39.226cd–229ab), kalyāṇakaghṛta (39.229cd–234ab),<sup>520</sup> mahākalyāṇakaghṛta (39.234cd–240ab),<sup>521</sup> pañcagavyaghṛta (39.240cd–242)<sup>522</sup> and its varieties (39.243–244ab), pañcāvika-, pañcāja-, pañcamahiṣa- and caturuṣṭraghṛta (39.244c–f), triphalādighṛta (39.245–249), a second variety of paṭolādighṛta (39.250–254ab),<sup>523</sup> pañcasāra (39.254cd–255), lākṣātaila (39.256), and kṣīrivṛkṣādītaila (39.257–258); treatments to be employed in particular kinds of irregular fever (39.259–261);<sup>524</sup> fumigations for irregular fevers (39.262–263ab); a collyrium (39.263cd); the medicated ghees mentioned in the chapter on the treatment of udara<sup>525</sup> and the ajita ghee

mentioned in the Kalpa(sthāna)<sup>526</sup> cure (irregular) fevers (39.264); a fever arising from possession by malevolent beings should be treated with bandha,<sup>527</sup> āveśana<sup>528</sup> and worship, as taught in the chapters on bhūtavidyā,<sup>529</sup> a fever of mental origin requires mental treatment (39.265);<sup>530</sup> the treatment of fever due to fatigue and wasting (39.266ab), curses and magic (39.266cd),<sup>531</sup> portents (utpāta) and bad influences of planets (grahapīḍana) (39.267ab); the treatment of fever resulting from a traumatic injury (39.267cd–268ab),<sup>532</sup> the inhalation of the smell of herbs, or the ingestion of poisonous substances (39.268cd–269); the diet beneficial to patients with an irregular fever (39.270ab); these patients should also pay homage to brāhmaṇas, cows, Iśāna<sup>533</sup> and Ambikā<sup>534</sup> (39.270cd);<sup>535</sup> external measures to be employed against the feeling of coldness in patients with fever (39.271–281);<sup>536</sup> internal and external treatment when a burning sensation is the predominant symptom (39.282–294ab);<sup>537</sup> pitta should be eliminated first in fevers caused by concerted action of the doṣas (39.294cd–295ab); the general treatment of complications of fever (39.295cd–296ab); the specific treatment of particular complications (39.296cd–305); the treatment of mature pitta fever, raktapitta which moves upwards, and tremors (vepathu) (39.306–307ab), fever by kapha and vāta (39.307cd), giddiness (39.308ab), fever due to vāta (39.308cd–309ab), fever due to pitta (39.309cd–312ab), a burning sensation (39.312cd), and fever due to kapha (39.313–315ab); the use of fatty substances (39.315cd–316); medicated ghees to be used in fevers caused by pitta, kapha, and combinations of doṣas (39.317); the treatment of residual doṣas (39.318–319); ghee should be administered in all fevers after the lapse of twelve days (39.320); the state of the patient during remissions (39.321);<sup>538</sup> the signs of release from fever (39.322);<sup>539</sup> the dangers inherent in fever (39.323–324).<sup>540</sup>

Chapter forty is devoted to atisāra (diarrhoea) and its management.<sup>541</sup>

The subjects dealt with are: aetiological factors (40.3–5);<sup>542</sup> pathogenesis (40.6);<sup>543</sup> the six types of diarrhoea: caused by vāta, pitta, kapha, all the doṣas, grief (śoka), and āma (40.7ab);<sup>544</sup> the rejection of the view that diarrhoea is of many types; Kāśīrāja (= Dhanvantari) proclaims that these diverse types are related to stages (avasthā) of the involvement of the doṣas (40.7cd–8ab); the prodromes (40.8cd–9ab);<sup>545</sup> the symptoms of diarrhoea due to vāta,<sup>546</sup> pitta,<sup>547</sup> kapha,<sup>548</sup> and all the doṣas (40.9cd–13ab);<sup>549</sup> the pathogenesis and symptomatology of diarrhoea caused by grief; this disorder is troublesome and extremely difficult to cure (40.13cd–15ab);<sup>550</sup> the aetiology, pathogenesis and symptomatology of the āma type; the characteristics of āma and pakva stools (40.15–18);<sup>551</sup> types of diarrhoea that should not be accepted for treatment (40.19–21);<sup>552</sup> all types of diarrhoea exhibit the features of one or more of the doṣas, including those types which are due to poorly digested fatty substances, viśūcikā, various types of disorders of digestion, poisoning, haemorrhoids, and parasites (40.22–23);<sup>553</sup> careful distinction of the āma and pakva stages is essential in the treatment of diarrhoea (40.24); fasting (laṅghana) is the first therapeutic measure to be taken, followed by the administration of gruels (yavāgū), etc., prepared with pācana (maturation-promoting) drugs (40.25); the treatment of the āma stage (40.26–28);<sup>554</sup> contra-indications for constipating (saṃgrahana) measures; disorders resulting from

neglect of these contra-indications (40.29–30); the treatment of patients passing stools frequently, with difficulty, and in small quantities, associated with piercing pain (40.31); the treatment of watery diarrhoea (40.32); the treatment of patients repeatedly passing small amounts of hard stools, associated with piercing pain (40.33); fasting and maturation-promoting preparations should always be employed first (40.34ab); twenty prescriptions against āmātīsāra (40.34cd–46); more prescriptions against this type of diarrhoea (40.47–50); more recipes against diarrhoea (40.51–57); the treatment of the āma and pakva varieties of diarrhoea caused by pitta (40.58–75ab);<sup>555</sup> the treatment of piercing pain (śūla) after the elimination of āma (40.75cd–77ab);<sup>556</sup> the treatment of diarrhoea due to the three doṣas (40.77cd–78ab);<sup>557</sup> the treatment of piercing pain associated with diarrhoea (40.78cd–80ab); indications for the treatment with puṭapākas (40.81ab); various puṭapākas (40.81cd–89ab); various other prescriptions (40.89cd–99ab); the use of (medicated) milk in diarrhoea (40.99cd–101);<sup>558</sup> the use of purgatives and medicated ghees (40.102); medicated ghees against bloody diarrhoea (40.103–104ab) and diarrhoea due to all the doṣas (40.104cd–105); indications for emetics (40.106); cases in which particular enemas are useful (40.107–111); the treatment of weakness of (the sphincters of) the anus (gudadarbalya) in diarrhoea of long standing (40.112);<sup>559</sup> dietary instructions (40.113–115); the pathogenesis and symptoms of bloody diarrhoea (raktātīsāra)<sup>560</sup> (40.116–117ab);<sup>561</sup> its treatment (40.117cd–129);<sup>562</sup> the treatment of the stage of diarrhoea in which the stools have become bound (saktaviṣ) (40.130–131), are frothy (phenila) (40.132–134ab), or slight in quantity (40.134cd–137); the aetiology and pathogenesis of pravāhikā (40.138);<sup>563</sup> the symptoms of pravāhikā<sup>564</sup> due to vāta, pitta, kapha, and blood (40.139–140ab);<sup>565</sup> its general treatment (40.140cd–141ab);<sup>566</sup> specific treatments (40.141cd–156); the general treatment of diarrhoea (40.157–158); the treatment of diarrhoea caused by (an excess of) dry or fatty articles of diet, by fear (bhaya), grief, poisons, haemorrhoids, and parasites (40.159–160ab);<sup>567</sup> the treatment of complications (40.160cd); when more doṣas are involved, pitta should be counteracted first in diarrhoea and fever, but vāta in all other diseases (40.161);<sup>568</sup> the signs of cure in cases of diarrhoea (40.162);<sup>569</sup> diseases in general are caused by karman, by the doṣas, or by a combination of both; the ways in which these groups of diseases may subside or be cured (40.163–166ab); the aetiology of grahaṇīroga<sup>570</sup> (40.166cd–168);<sup>571</sup> the organ called grahaṇī is the same as the pittadharā kalā, situated between āmāśaya and pakvāśaya (40.169);<sup>572</sup> grahaṇī and digestive fire are closely connected, because the latter resides in the grahaṇī; corruption of the digestive fire leads for that reason inevitably to corruption of the grahaṇī (40.170);<sup>573</sup> general features of grahaṇīroga (40.171–172);<sup>574</sup> the prodromes (40.173);<sup>575</sup> the general symptoms (40.174–175); symptoms due to vāta, pitta, kapha, and all three doṣas (40.176–177);<sup>576</sup> treatment measures (40.178–182ab);<sup>577</sup> treatment of the complications (40.182cd).

Chapter forty-one is devoted to dessication (śoṣa)<sup>578</sup> and its management.<sup>579</sup>

Śoṣa is described as an illness following upon several (other) diseases and preceding many other ones, difficult to be diagnosed and to be restrained, and therefore of a very serious character (41.3). It is called śoṣa because it dries up (samśoṣaṇa) the rasa

and the other elements of the body, and kṣaya because it leads to decline of bodily functions; some call it rājayakṣman because Candramas (i.e., the lunar deity) was the first one to suffer from it (41.4–5).<sup>580</sup> Some regard this disease as arising from each of the three doṣas separately, but it should be considered to be one single entity caused by concerted action of the doṣas (41.6–8ab).<sup>581</sup>

The next subjects of the first part of the chapter are: the aetiological factors (41.8cd–10);<sup>582</sup> the six main general symptoms (41.11);<sup>583</sup> the eleven symptoms due to the doṣas (41.12–13);<sup>584</sup> the characteristics of incurable cases (41.14–15);<sup>585</sup> according to a divergent view, the causes of śoṣa are: (excessive) sexual intercourse, grief, old age, (excessive) physical exercise, travelling, fasting, sores, and uraḥkṣata (41.16); the symptoms of śoṣa due to (excessive) sexual intercourse (41.17),<sup>586</sup> grief (41.18), old age (41.19–20), travelling (41.21),<sup>587</sup> excessive physical exercise (41.22),<sup>588</sup> and sores (41.23); the causes and symptoms of uraḥkṣata<sup>589</sup> (41.24–26ab);<sup>590</sup> some are of the opinion that śoṣa may be brought about by a variety of causes;<sup>591</sup> this view should be rejected, because the disorders described by these authorities do not present the complete set of eleven symptoms and are actually states with decrease (kṣaya) of one of the dhātus; these conditions and their treatment have already been described<sup>592</sup> (41.26cd–28); the prodromes of śoṣa (41.29–30),<sup>593</sup> cases to be rejected and accepted for treatment (41.31–32ab).<sup>594</sup>

The subjects of the second part of the chapter are: general principles of treatment (41.32cd–35);<sup>595</sup> treatment with meat preparations and the accompanying diet (41.36–39);<sup>596</sup> treatment with medicated ghees (41.40–54);<sup>597</sup> the (śatpalaka)ghṛta, employed against plīhodara, as well as the three other medicated ghees, described in the chapter on udara,<sup>598</sup> are also useful (41.55ab); complications like svaravaiḥṛta (affections of the voice), etc., should be treated according to the methods described (41.55cd);<sup>599</sup> treatment with various products of a goat (41.56); various prescriptions (41.57); things to be avoided by a patient and rules regarding his behaviour (41.58).<sup>600</sup>

Chapter forty-two is devoted to gulma<sup>601</sup> and its management.<sup>602</sup>

The subjects dealt with in the first part of this chapter<sup>603</sup> are: the aetiology and pathogenesis of gulma, a disease of five types (42.3);<sup>604</sup> a gulma is a round (vṛtta) lump (granthi), located between the cardiac region and the bladder, mobile (saṃcārīn) or immobile (acala), and increasing or decreasing in size (42.4); the five locations of gulma are the two sides of the chest (pārśva), the cardiac region, the umbilical region, and the region of the bladder (42.5ab);<sup>605</sup> this disease is called gulma because it originates from hidden vāta, possesses deep roots, and covers a large space, thus being like a shrub (gulma); since it consists of an accumulation (of the doṣas) themselves and develops like a bubble in water, moving about within (the abdominal cavity), it does not reach the stage of maturation (pāka)<sup>606</sup> (42.5cd–7ab); gulma may arise from each of the doṣas singly or by all the doṣas collectively;<sup>607</sup> an additional type, caused by blood, occurs in women (42.7cd–8ab); the general prodromes of gulma (42.8cd–9);<sup>608</sup> the symptoms of gulma due to vāta (42.10),<sup>609</sup> pitta (42.11),<sup>610</sup> kapha (42.12),<sup>611</sup> and all the doṣas (42.13ab);<sup>612</sup> the aetiology and pathogenesis of raktagulma, due to blood and only occurring in women; its general features are like those of gulma

due to pitta; signs pointing to pregnancy are also present, but the abdomen does not swell as much and movements of the child are absent; it should be treated after the term of (a normal) pregnancy (42.13cd–15);<sup>613</sup> the treatment of gulma due to vāta (42.16), pitta (42.17), kapha (42.18), concerted action of the doṣas (42.19ab), and blood (42.19cd–21);<sup>614</sup> anuvāsana enemas to be employed in cases of gulma caused by vāta, pitta, or kapha (42.22–23);<sup>615</sup> medicated ghees against gulma<sup>616</sup> arising from vāta: a ghee prepared with ṣaḍaṅgaghṛta (42.24), citrakādighṛta (42.25–26),<sup>617</sup> hīṅgṛvādighṛta (42.27–28),<sup>618</sup> dādhikāghṛta (42.29–30),<sup>619</sup> rasonādighṛta (42.31–33),<sup>620</sup> and another ghee (42.34–35); ghees against gulma due to pitta or blood (42.36–37ab) and kapha (42.37cd–38); the treatment of gulma with involvement of all the doṣas (42.39–40ab); caustic preparations for internal use (42.40cd–46ab);<sup>621</sup> the preparation of vṛṣṭīvyādiṛṣṭa<sup>622</sup> and pāṭhāṇiḡuṭikā, together with their indications (42.46cd–52ab); indications for bloodletting (42.52cd–53ab);<sup>623</sup> useful liquid preparations (42.53cd–54ab), peyās, and khalas (42.54cd–55ab); the treatment of cases with constipation (baddhavarca) as a prominent symptom; various types of sudation (sveda) are indicated to relieve this symptom (42.55cd–56ab);<sup>624</sup> purgation in patients suffering from gulma (42.56cd–57ab); various therapeutic measures (42.57cd–59ab); suppositories (varti) against constipation (varconirodha) in patients suffering from gulma (42.59cd–60ab); some special prescriptions (42.60cd–66ab); śūla (piercing pain) as a complication of gulma; its characteristics and the symptoms produced by it (42.66cd–68); prescriptions useful in śūla due to a single doṣa, two doṣas, and all three doṣas (42.69–73ab); other measures against śūla in cases of gulma (42.73cd–75ab); articles of diet to be avoided by patients with gulma (42.75cd–76ab).

The second part of the chapter, devoted to śūla (piercing pain), deals with the following subjects: śūla may occur without gulma; its seats are identical with those of gulma (42.76cd–77ab);<sup>625</sup> the aetiology and pathogenesis (42.77cd–80);<sup>626</sup> śūla is called thus because it is characterized by severe pains (vedanā), as if one's body is pierced by a nail (śaṅku) or spike (śūla) (42.81); the features of śūla due to vāta (42.82–83), pitta (42.84–85ab), kapha (42.85cd–86), and concerted action of the doṣas (42.87);<sup>627</sup> the general and specific treatment of the vāta type (42.88cd–103ab),<sup>628</sup> pitta type (42.103cd–108),<sup>629</sup> and kapha type (42.109–111);<sup>630</sup> a recipe against all types of śūla (42.112–115); a bhasma,<sup>631</sup> to be taken with warm water, against śūla due to kapha (42.116–117ab); the pathogenesis and symptoms of pārśvaśūla, due to vāta and kapha (42.117cd–119); its treatment (42.120–123ab); the pathogenesis and symptoms of kuṣṭhīśūla,<sup>632</sup> due to vāta and arising from āma (42.123cd–125); its treatment (42.126–131ab);<sup>633</sup> the pathogenesis and symptoms of hr̥cchūla, due to vāta and rasa (42.131cd–132), and to be treated like hr̥droga<sup>634</sup> (42.133ab); the pathogenesis and symptoms of bastīśūla, due to vāta (42.133cd–134); the symptoms of mītraśūla, due to vāta (42.135); the aetiology, pathogenesis and symptoms of viṭśūla, due to vāta (42.136–139); its treatment (42.140–141); śūla arising from undigested food (annadoṣa); its aetiology, pathogenesis, symptoms, and treatment (42.142–145); all the therapeutic procedures employed in cases of gulma are useful too in patients with śūla (42.146).



Chapter forty-three is devoted to diseases of the cardiac region (hṛdroga) and their management.

The subjects dealt with are: aetiology and pathogenesis (43.3–4);<sup>635</sup> the four types of hṛdroga: due to vāta, pitta, kapha, and parasites (krmi) (43.5);<sup>636</sup> the symptoms of hṛdroga due to vāta (43.6),<sup>637</sup> pitta (43.7),<sup>638</sup> kapha (43.8),<sup>639</sup> and parasites (43.9);<sup>640</sup> the complications of hṛdroga caused by the doṣas (43.10ab) and parasites (43.10cd); the treatment of hṛdroga due to vāta (43.11–14),<sup>641</sup> pitta (43.15–17ab),<sup>642</sup> kapha (43.17cd–19),<sup>643</sup> and parasites (43.20–22).<sup>644</sup>

Chapter forty-four is devoted to morbid pallor (pāṇḍuroga) and its management.

The subjects dealt with are: aetiology and pathogenesis (44.3);<sup>645</sup> the four types of pāṇḍuroga,<sup>646</sup> called thus on account of excessive pallor as its characteristic feature<sup>647</sup> (44.4); the prodromes (44.5);<sup>648</sup> names of diseases covered by the general term pāṇḍuroga are kāmālā, pānakī,<sup>649</sup> pāṇḍuroga, kumbha, lāgharaka,<sup>650</sup> and alasa (44.6); the symptoms of pāṇḍuroga due to vāta (44.7),<sup>651</sup> pitta (44.8),<sup>652</sup> kapha (44.9),<sup>653</sup> and all the doṣas together (44.10a);<sup>654</sup> the aetiology and symptoms of kāmālā<sup>655</sup> (44.10b–11ab);<sup>656</sup> the variety of kāmālā called kumbhakāmālā presents a large amount of swelling (śopha) and pain in the joints (44.11cd);<sup>657</sup> when associated with a number of other symptoms, kāmālā is known as lāgharaka or alasa (44.12ab); when, due to vāta and pitta, the body assumes a greenish, yellow, or dark blue colour, the variety (of kumbhakāmālā) is called halīmaka (44.12cd);<sup>658</sup> complications that may arise in these disorders (44.13); the general treatment of curable cases (44.14–15);<sup>659</sup> some purgative recipes (44.16); recipes containing iron (44.17);<sup>660</sup> doṣas should be eliminated repeatedly in small amounts in order to prevent the development of swelling (44.18ab); the recipes of a mantha (44.18cd) and a medicated ghee (44.19–20ab); the kaṣāya of yaśīmadhu (liquorice) as a useful drug (44.20cd); cūrṇas, partly with the addition of powdered iron (44.21);<sup>661</sup> an avaleha, containing salts and other substances (44.22); an avaleha, containing maṇḍūra, iron, and a number of medicinal plants (44.23);<sup>662</sup> vaṭakas, containing maṇḍūra and vegetable drugs (44.24);<sup>663</sup> some more recipes, mostly avalehas (44.25–30ab); preparations for kāmālā (44.30cd–31ab)<sup>664</sup> and kumbhakāmālā (44.31cd–33ab); a preparation containing rock salt and maṇḍūra (44.33cd–35); the treatment of lāgharaka (44.36ab); dietary prescriptions (44.36cd–37); the treatment of complications (44.38); signs indicating incurability (44.39–40).<sup>665</sup>

Chapter forty-five is devoted to haemorrhagic disorders (raktapitta) and their management.

The subjects dealt with are: aetiology and pathogenesis (45.3–4);<sup>666</sup> the types moving upwards, downwards, and both ways simultaneously (45.5–6ab);<sup>667</sup> some authorities assert that the blood which appears comes from liver and spleen (45.6cd);<sup>668</sup> the type moving upwards is curable, that moving downwards is amenable to palliative treatment, that which affects both pathways is incurable (45.7ab);<sup>669</sup> the prodromes (45.7cd–8ab);<sup>670</sup> the involvement of the doṣas should be determined according to the characteristics of the (expelled) blood (45.8cd);<sup>671</sup> complications

(45.9);<sup>672</sup> signs indicating incurability (45.10);<sup>673</sup> disorders arising when the bleeding is checked in the initial stage in strong and well nourished patients (45.11);<sup>674</sup> the general treatment of raktapitta (45.12–14);<sup>675</sup> suitable emetic preparations (45.15);<sup>676</sup> beneficial articles of diet<sup>677</sup> and various other preparations (45.16–27); six kinds of avapiḍa (nasal drops) useful in nose bleeds (45.28ab);<sup>678</sup> animal blood and goat's liver, together with the bile, as useful remedies in excessive loss of blood (45.28c-f); a series of recipes against raktapitta (45.29–36); recipes against nose bleeds (45.37); the beneficial effect of cooling measures<sup>679</sup> and sweet substances (45.38ab); salutary enemas (45.38cd–42); bleeding from the urinary bladder should be treated by the application of uttarabasti (45.43ab); all the measures described for raktapitta are to be employed in bleeding haemorrhoids (45.43cd), asrgdara, and excessive blood loss during surgery (45.44); raktapitta should be treated only after a thorough examination of the signs indicating the involvement of the doṣas and blood (45.45).

Chapter forty-six is devoted to fainting (mūrchā) and its management.<sup>680</sup>

The subjects dealt with are: aetiology and pathogenesis (46.3–4);<sup>681</sup> the general prodromes (46.5); a more detailed description of the pathogenesis of mūrchā or moha (46.6–7c); the six types of mūrchā: caused by each of the three doṣas, blood, alcoholic drinks, and poisons; pitta is predominant in all these types (46.7d–8);<sup>682</sup> the features (of the types caused by the doṣas) are the same as those described for apasmāra (46.9ab);<sup>683</sup> the guṇa called tamas predominates in the smell emanating from blood, as it does in earth and water; this explains that people may faint when smelling blood; others faint when seeing (blood), which, according to some authorities, is due to the inherent nature (svabhāva) of blood itself (46.9cd–10); poisonous substances and alcoholic drinks are very violent (tīvra) as to their properties,<sup>684</sup> which makes them capable of producing fainting (46.11); the symptoms of fainting due to blood (46.12ab), alcoholic drinks (46.12c-f), and poisonous substances (46.13); the treatment of mūrchā (46.14–20ab);<sup>685</sup> the condition of someone who has fainted and does not recover consciousness, due to an excess of doṣas and tamas, is called saṃnyāsa, a disorder very difficult to cure; treatment should be initiated immediately (46.20cd–22ab); measures that may help the patient to regain consciousness; symptoms occurring when treatment fails and the patient should be given up; treatment after the recovery of consciousness (46.22cd–24); antipyretic kaṣāyas should also be prescribed in cases of mūrchā, dependent on the doṣa(s) involved; antidotes are useful in mūrchā caused by poison (46.25).

Chapter forty-seven is devoted to disorders caused by the abuse of alcoholic drinks (pānātyaya) and the management of these disorders.<sup>686</sup>

The subjects dealt with are: the eight properties of alcoholic drinks: uṣṇa (hot), tīkṣṇa (sharp), sūkṣma (subtle), viśada (clear), rūkṣa (dry), āśukara (quickly acting), vyavāyin (relaxation-promoting),<sup>687</sup> and vikāśin (diffusive); the actions and effects of these properties (47.3–5);<sup>688</sup> alcoholic drinks are acid in taste and light, they stimulate the appetite and the digestive fire;<sup>689</sup> some assert that all the tastes, the saltish one excepted, are present in them (47.6); the beneficial effects of alcoholic drinks when used

properly (47.7–8);<sup>690</sup> when used without food and immoderately, these drinks, being of a fiery nature, combine with the bodily fire and produce intoxication (*mada*) (47.9);<sup>691</sup> intoxication leads to loss of mental balance and the expression of hidden feelings (47.10);<sup>692</sup> the three stages (*avasthā*) of intoxication: *pūrva*, *madhya* and *pāścima*; the characteristics of these stages (47.11–12);<sup>693</sup> persons with a predominance of *kapha*, those with a slight amount of *pitta*, those who regularly use fatty substances, and those who drink in moderation, are not very much affected by alcoholic drinks, while the contrary applies to the opposite types (47.13);<sup>694</sup> those who habitually drink on an empty stomach, and when alone, develop very troublesome diseases which ultimately destroy the body (47.14); types of persons prone to develop disorders caused by alcohol abuse (47.15–16); the disorders due to abuse of alcohol are: *pānātyaya*, *paramada*, *pānājīrṇa*, and the serious (*ugra*) condition called *pānavibhrama* (47.17);<sup>695</sup> the symptoms of *pānātyaya* due to *vāta*, *pitta*, *kapha*, and all the three *doṣas* (47.18–19ab);<sup>696</sup> the symptoms of *paramada* (47.19cd–20ab),<sup>697</sup> *pānājīrṇa* (47.20cd–21ab),<sup>698</sup> and *pānavibhrama* (47.21cd–22ab);<sup>699</sup> signs indicating incurability (47.22cd–23ab); complications arising from alcohol abuse (47.23cd); the treatment of *pānātyaya* due to *vāta* (47.24cd–26ab),<sup>700</sup> *pitta* (47.26cd–27),<sup>701</sup> *kapha* (47.28–29ab),<sup>702</sup> a combination of two *doṣas*, and all three *doṣas* together (47.29cd–30ab);<sup>703</sup> recipes against *pānātyaya* (47.30cd–34ab); the treatment of *paramada* (47.34cd–36), *pānājīrṇa* (47.37–39a), and *pānavibhrama* (47.39b–41); a recipe against all disorders caused by alcohol abuse (47.42); things to be recommended to persons habitually enjoying alcoholic drinks (47.43–44); two recipes useful in *pānātyaya* (47.45–46); the type of alcoholic drink habitually used by a patient with one of the described disorders should be prescribed in a methodical way during his treatment (47.47–48);<sup>704</sup> someone who, after a period of abstinence, suddenly resumes drinking too much, develops the disorders described in relation with *pānātyaya* (47.49);<sup>705</sup> the pathogenesis of thirst (*tṛṣṇā*), resulting from alcohol abuse (47.50); the treatment of this condition (47.51–54ab); the pathogenesis of a severe burning sensation (*dāha*), resulting from alcohol abuse (47.54); the general treatment of this disorder (47.55–65); the accompanying symptoms and the treatment of a burning sensation due to blood (47.67–69); the pathogenesis, accompanying symptoms, and treatment of a burning sensation due to *pitta* (47.70–73ab); the accompanying symptoms and the treatment of a burning sensation due to filling of the *koṣṭha* with blood are like those described in the *sadyovraṇīya* chapter<sup>706</sup> (47.73–74ab); the accompanying symptoms of a burning sensation caused by decrease of the elements of the body; the treatment of this condition is like that of *raktapitta* (47.74cd–75); the treatment of a burning sensation in patients with a trauma, those who do not observe the rules of diet, and those suffering from grief (47.76–77); patients with a burning sensation due to an injury to a vital spot (*matman*) are incurable and should not be treated when their body feels cold (47.78); after subsidence of the complications of the disorders due to drinking, purificatory measures should be carried out (47.79); the treatment of thirst by administering a diluted and medicated alcoholic drink (47.80); the proper way of enjoying a drink, without running the risk of intoxication or the development of a disease produced by alcohol (47.81).

Chapter forty-eight is devoted to (pathological) thirst (tṛṣṇā) and its management.<sup>707</sup>

The subjects dealt with are: a person who is not satisfied, although drinking water constantly, and craves for water again and again, suffers from the disorder called tṛṣṇā (48.3); aetiology and pathogenesis (48.4–5);<sup>708</sup> the seven types of tṛṣṇā: due to each of the three doṣas, a trauma (kṣāta), depletion (kṣaya), āma, and diet (bhakta) (48.6);<sup>709</sup> the general prodromes (48.7);<sup>710</sup> the symptoms of tṛṣṇā due to vāta (48.8),<sup>711</sup> pitta (48.9),<sup>712</sup> kapha (48.10–11),<sup>713</sup> a trauma (48.12),<sup>714</sup> depletion of rasa (48.13–14ab),<sup>715</sup> āma (48.14cd),<sup>716</sup> and the excessive intake of oleaginous, sour, saltish, and heavy articles of food (48.15ab);<sup>717</sup> signs pointing to a bad prognosis (48.15cd);<sup>718</sup> general treatment (48.16–18);<sup>719</sup> the treatment of tṛṣṇā due to vāta (48.19),<sup>720</sup> pitta (48.20),<sup>721</sup> and kapha (48.21);<sup>722</sup> measures against pitta are useful in all types of tṛṣṇā (48.22–23ab); the treatment of tṛṣṇā due to a trauma (48.23cd–27), depletion (48.28ab),<sup>723</sup> āma (48.28cd–29ab), heavy articles of food (48.29cd),<sup>724</sup> fatigue (48.30ab), abstention from food (bhaktoparodha) (48.30cd),<sup>725</sup> the drinking of fatty substances (48.31ab), abuse of alcohol (48.31cd), heat (48.32ab), and the doṣas (48.32cd); measures which are beneficial in all types of tṛṣṇā (48.33).

Chapter forty-nine is devoted to vomiting (chardi) and its management.<sup>726</sup>

The subjects dealt with are: aetiology (49.3–5);<sup>727</sup> pathogenesis (49.6–7);<sup>728</sup> the prodromes (49.8); the symptoms of vomiting due to vāta (49.9),<sup>729</sup> pitta (49.10),<sup>730</sup> kapha (49.11),<sup>731</sup> and all the doṣas (49.12ab);<sup>732</sup> exogenous factors which may lead to vomiting are: loathsome sights,<sup>733</sup> dauhṛda during pregnancy, āma, uncongenial diet, and parasites; these conditions should be diagnosed according to the doṣa(s) involved (49.12c–f); the symptoms of vomiting caused by parasites (49.13); characteristics of cases not to be treated, being incurable (49.14);<sup>734</sup> general treatment measures (49.15–18ab);<sup>735</sup> the treatment of vomiting due to vāta (49.18cd–20),<sup>736</sup> pitta (49.21–22),<sup>737</sup> kapha (49.23),<sup>738</sup> all three doṣas (49.24),<sup>739</sup> and exogenous factors (49.25–26);<sup>740</sup> various recipes against vomiting (49.27–34); articles of diet to be recommended in all cases of vomiting (49.35).

Chapter fifty is devoted to hiccup (hikkā) and its management.<sup>741</sup>

The subjects dealt with are: the aetiology of hiccup, respiratory disorders (śvāsa), and cough (kāsa) (50.3–5);<sup>742</sup> the characteristics of hiccup and the derivation of its name (50.6);<sup>743</sup> vāta, associated (anugata) with kapha, gives rise to five types of hiccup: annajā, yamalā, kṣudrā, gambhīrā, and mahatī (50.7);<sup>744</sup> the general prodromes (50.8);<sup>745</sup> the aetiology and pathogenesis of annajā hiccup (50.9–10ab);<sup>746</sup> yamalā hiccup appears in two successive bouts and with long intervals (50.10cd–11ab);<sup>747</sup> the characteristics of kṣudrā (50.11cd–12ab),<sup>748</sup> gambhīrā (50.12cd–13),<sup>749</sup> and mahāhikkā (50.14);<sup>750</sup> signs indicating incurability;<sup>751</sup> gambhīrā and mahāhikkā are also incurable and should not be accepted for treatment (50.15); general treatment measures (50.16ab);<sup>752</sup> errhines (50.16cd); beneficial drinks; emetics (50.17ab); three errhines (50.17cd–18ab); fumigations;<sup>753</sup> sudation<sup>754</sup> (50.18cd–19ab); six electuaries (50.19cd–21ab); beneficial dietary items (50.21cd); medicated milk preparations (50.22ab); medicated urine preparations which relieve hiccup when smelled (50.

22cd–23ab); useful drinks (50.23cd–25); a series of recipes (50.26–28); useful broths (50.29); purgation (50.30ab); some recommend anuvāsana enemas (50.30cd).

Chapter fifty-one is devoted to respiratory disorders (śvāsa) and their management.

The subjects dealt with are: the aetiological factors, which are the same as those for hiccup (51.3);<sup>755</sup> pathogenesis (51.4);<sup>756</sup> śvāsa, a serious disease (mahāvvyādhi), is, though one in its nature, divided into five types: kṣudraka, tamaka, chinna(śvāsa), mahā(śvāsa), and ūrdhva(śvāsa) (51.5);<sup>757</sup> the prodromes (51.6);<sup>758</sup> the characteristics and symptoms of kṣudraśvāsa<sup>759</sup> (51.7),<sup>760</sup> tamaka<sup>761</sup> and a variety called pratamaka<sup>762</sup> (51.8–10),<sup>763</sup> chinnaśvāsa<sup>764</sup> (51.11),<sup>765</sup> mahāśvāsa<sup>766</sup> (51.12),<sup>767</sup> and ūrdhvaśvāsa<sup>768</sup> (51.13);<sup>769</sup> kṣudraśvāsa is easily curable, tamaka is difficult to cure; the remaining three types, as well as tamaka in a weak patient, are incurable (51.14);<sup>770</sup> general treatment; some authorities assert that purificatory measures by both the upper and lower routes, with the exception of snehabasti, should be applied; actually, only mild varieties of these measures should be employed in patients with an adequate vital power (51.15);<sup>771</sup> medicated ghees: abhayādighṛta (51.16), sauvarcalādighṛta (51.17–18ab), hiṃsrādighṛta (51.18cd–20ab), vṛṣaghṛta (51.20cd–21ab), śṛṅgyādighṛta (51.21cd–23ab), suvāhādighṛta (51.23cd–25ab); a second sauvarcalādighṛta and a variety of it, prepared with a decoction of gopavallī (51.25cd–26); the five ghees mentioned<sup>772</sup> are to be employed in śvāsa and kāsa (51.27ab);<sup>773</sup> the recipe of tālīśādighṛta (51.27cd–29ab); vāsāghṛta<sup>774</sup> and ṣaṭpalagṛta<sup>775</sup> are also beneficial (51.29cd); bhṛṅgarājataila (51.30);<sup>776</sup> meat broths, vegetable yūṣas,<sup>777</sup> and milk preparations (51.31–32ab); five electuaries (leha) (51.32cd–35);<sup>778</sup> a series of various recipes (51.36–43ab); the recipes described for pāṇḍuroga, śoṭha and kāsa may also be used in cases of śvāsa (51.43cd–44ab); some more recipes (51.44cd–46ab); beneficial articles of diet and related items (51.46cd–47); treatment with oleation and sudation (51.48–49ab);<sup>779</sup> treatment with medicinal smokes (dhūma) (51.49cd–53ab);<sup>780</sup> treatment of strong and weak patients (51.53cd–54);<sup>781</sup> an electuary (51.55); śvāsa, kāsa and vilambikā are as difficult to restrain as a fire fanned by the wind, or the vājra hurled by the king of the gods<sup>782</sup> (51.56).

Chapter fifty-two is devoted to cough (kāsa) and its management.<sup>783</sup>

The subjects dealt with are: the aetiological factors of kāsa are the same as those of hikkā and śvāsa (52.3);<sup>784</sup> pathogenesis (52.4–5);<sup>785</sup> cough is of five types: due to vāta, pitta, kapha, a trauma (kṣata), and wasting (kṣaya); aggravation of cough may lead to the development of yakṣman<sup>786</sup> (52.6);<sup>787</sup> the prodromes (52.7);<sup>788</sup> the symptomatology of cough due to vāta (52.8),<sup>789</sup> pitta, (52.9)<sup>790</sup> and kapha (52.10);<sup>791</sup> the aetiology and symptomatology of coughing due to (uraḥ)kṣata<sup>792</sup> (52.11);<sup>793</sup> the symptoms of cough caused by wasting (52.12),<sup>794</sup> which is extremely difficult to cure (52.13ab);<sup>795</sup> cough occurring in old age is only amenable to palliative treatment (52.13cd);<sup>796</sup> recipes against cough in general (52.14–25);<sup>797</sup> the treatment of cough due to vāta (52.26–28ab)<sup>798</sup> and kapha (52.28cd–30ab);<sup>799</sup> a recipe against all types of cough (52.30cd–32ab); the treatment of the types caused by pitta,<sup>800</sup> kṣata,<sup>801</sup> and kṣaya<sup>802</sup> (52.32cd–37); the preparation of kalyāṇakaguḍa and its indications

(52.38–41); the preparation and indications of agastyāvaleha (52.42–46);<sup>803</sup> the preparation of kulīrādighṛta, useful against the kṣataja and kṣayaja types of cough (52.47); a ghee against all types of cough (52.48).

Chapter fifty-three is devoted to disorders of the voice (svarabheda)<sup>804</sup> and their management.

The subjects dealt with are: aetiology and pathogenesis of the six types of svarabheda (53.3); the symptomatology of svarabheda due to vāta, pitta, kapha, all the doṣas together, kṣaya (wasting), and accumulation of fatty tissue (medaścāya) (53.4–6);<sup>805</sup> cases which are incurable (53.7); general treatment (53.8); the measures described against śvāsa and kāsa should also be carried out (53.9ab); the treatment of svarabheda due to vāta (53.10–12), pitta (53.13–14), kapha (53.15), fatty tissue (53.16ab), all the doṣas and kṣaya (53.16cd), and loud speaking (53.17).

Chapter fifty-four is devoted to parasites<sup>806</sup> and the treatment of disorders caused by these organisms (kṛmiroga).

The subjects dealt with are: aetiological factors leading to excitement of kapha and pitta, which, in its turn, brings about the coming into being of numerous kinds of parasites at various places of the body (54.3–6ab);<sup>807</sup> these organisms, living upon phlegm (kapha) and faeces, usually occur in āmāśaya and pakvāśaya, or, when arising from blood, in the dhāmanīs (54.6c–f); the parasites, arising from faeces, kapha and blood,<sup>808</sup> are of twenty kinds (54.7); the seven kinds originating from faecal matter are: ajava,<sup>809</sup> vijava,<sup>810</sup> kipya,<sup>811</sup> cipya,<sup>812</sup> gaṇḍūpada,<sup>813</sup> curu,<sup>814</sup> and dvimukha,<sup>815</sup> their outward appearance; symptoms caused by them (54.8–11); the six kinds originating from kapha are: darbhapuṣpa, mahāpuṣpa, pralūna, cipiṭa, pipṭikā, and dāruṇa; their outward appearance; their location; diseases caused by them (54.12–14); the seven kinds originating from blood are: keśāda, romāda, nakhāda, dantāda, kikkīśa, kuṣṭhaja, and parī-sarpa; their outward appearance; they usually give rise to diseases located in the blood (54.15–16);<sup>816</sup> the dietary origin of the three groups of parasites (54.17–18ab); general symptoms (54.18cd–19ab); the first thirteen kinds are visible, the remaining seven ones invisible;<sup>817</sup> (infestations by) keśāda and romāda should not be accepted for treatment (54.19cd–20ab); general treatment of (54.20cd–25ab) and particular recipes against infestations by parasites originating from faecal matter and kapha (54.25cd–33);<sup>818</sup> parasites invading the head, heart, nose, ears, or eyes should be counteracted by collyria, errhines and nasal drops (54.34);<sup>819</sup> nasally administered drugs (5.35–36); parasites living on the hairs should be treated in the same way as baldness (indralupta); the treatment of dantādas is like that of diseases of the oral cavity (54.37); parasites originating from blood require the same treatment as kuṣṭha (54.38ab); drugs to be used against all kinds of parasites (54.38cd); beneficial articles of diet and those to be avoided (54.39–40).

Chapter fifty-five is devoted to udāvarta and its management.

The subjects dealt with are: natural urges should not be suppressed (55.3); suppression (vidhāraṇa) of the natural urges of passing flatus, faeces and urine, yawn-

ing, shedding tears, sneezing, belching, vomiting, and ejaculating leads to udāvarta, as well as the suppression of hunger, thirst, breathing, and sleep; these thirteen types will be described,<sup>820</sup> together with their treatment; an additional, fourteenth, type is due to unwholesome diet (55.4–6); the symptoms of udāvarta caused by suppression of the urge to pass flatus (55.7–8ab),<sup>821</sup> faeces (55.8cd–9ab),<sup>822</sup> and urine (55.9cd–10),<sup>823</sup> by suppression of the urge to yawn (55.11),<sup>824</sup> shed tears (55.12),<sup>825</sup> sneeze (55.13),<sup>826</sup> belch (55.14ab),<sup>827</sup> vomit (55.14cd),<sup>828</sup> and ejaculate (55.15),<sup>829</sup> by suppression of hunger (55.16ab),<sup>830</sup> thirst (55.16cd),<sup>831</sup> breathing (55.17ab),<sup>832</sup> and sleep (55.17cd);<sup>833</sup> cases not to be accepted for treatment (55.18); the general treatment is like that of vāta diseases (55.19–20ab);<sup>834</sup> the treatment of udāvarta caused by suppression of the urge to pass flatus (55.20cd),<sup>835</sup> faeces (55.21ab),<sup>836</sup> and urine (55.21cd–27),<sup>837</sup> suppression of the urge to yawn (55.28ab),<sup>838</sup> shed tears (55.28cd),<sup>839</sup> sneeze (55.29–30ab),<sup>840</sup> belch (55.30cd–3 lab),<sup>841</sup> vomit (55.31cd–32ab),<sup>842</sup> and ejaculate (55.32cd–33),<sup>843</sup> suppression of hunger (55.34ab),<sup>844</sup> thirst (55.34cd),<sup>845</sup> breathing (55.35ab),<sup>846</sup> and sleep (55.35cd);<sup>847</sup> the treatment of complications (55.36); the aetiology and pathogenesis of udāvarta due to the intake of particular foods (55.37–38); the symptoms and complications of this disorder (55.39–41ab);<sup>848</sup> the general treatment (55.41cd–43ab);<sup>849</sup> specific recipes (55.43cd–53).<sup>850</sup>

Chapter fifty-six is devoted to visūcikā (and related disorders) and their treatment.

The subjects dealt with are: the three disorders of digestion (ajīrṇa), called āma, viṣṭabdhā and vidagdhā, which have already been described,<sup>851</sup> may develop into visūcikā,<sup>852</sup> alasaka,<sup>853</sup> and vilambikā<sup>854</sup> respectively (56.3); the derivation of the name visūcikā (56.4); its aetiology (56.5) and symptomatology (56.6);<sup>855</sup> the symptoms of alasaka (56.7–8);<sup>856</sup> the characteristics of vilambikā, which is extremely difficult to cure (56.9); āma,<sup>857</sup> pervaded by the doṣas, produces disorders in those parts of the body where it is located; one should diagnose these disorders by means of the signs characteristic of the doṣas and of āma (56.10);<sup>858</sup> signs indicating a fatal outcome (56.11); the general treatment of curable cases of visūcī (56.12–13);<sup>859</sup> specific treatment (56.14–19ab); after-treatment (56.19cd–20ab); the general characteristics of ānāha (56.20cd–21ab);<sup>860</sup> the symptoms of ānāha due to āma (56.21cd–22ab); the symptoms of ānāha originating in the pakvāśaya (56.22cd–23ab);<sup>861</sup> the treatment of ānāha (56.23cd–27).

Chapter fifty-seven is devoted to arocaka (loss of appetite) and its treatment.

The subjects dealt with are: the pathogenesis of aversion to food (bhaktopaghāta), which is of five types: due to one of the doṣas singly, all the doṣas together, and psychological factors (57.3); the symptoms of arocaka due to vāta, pitta, kapha, and the three doṣas collectively (57.4–5);<sup>862</sup> the aetiology of arocaka of mental origin (57.6ab);<sup>863</sup> the treatment of the doṣic types of arocaka (57.6cd–8);<sup>864</sup> four avalehas as specifics against the four doṣic types (57.11); beneficial articles of diet in arocaka (57.12); treatment with āsthāpana enemas, purgation, and evacuation of the head (57.13ab); various preparations stimulating the appetite (57.13cd–15); the treatment of arocaka of mental origin (57.16–17).<sup>865</sup>

Chapter fifty-eight is devoted to mūtrāghāta<sup>866</sup> and its management.

The subjects dealt with are: the twelve types of mūtrāghāta (58.3–4);<sup>867</sup> the aetiology, pathogenesis and symptomatology of each of these twelve types: vātaṇḍalikā (58.5–6),<sup>868</sup> vātāsthilā (58.7–8),<sup>869</sup> vātābasti (58.9–10),<sup>870</sup> mūtrāṭīta (58.11–12),<sup>871</sup> mūtrajaṭhara (58.13–14),<sup>872</sup> mūtrotsaṅga (58.15–16),<sup>873</sup> mūtrasaṃkṣaya (58.17),<sup>874</sup> mūtragranthi (58.18–19),<sup>875</sup> mūtraśukra (58.20–21),<sup>876</sup> uṣṇavāta (58.22–23),<sup>877</sup> mūtraukasāda due to pitta<sup>878</sup> (58.24–25ab), and mūtraukasāda due to kapha<sup>879</sup> (58.25cd–26);<sup>880</sup> general treatment (58.27–28);<sup>881</sup> four recipes against mūtrakṛcchra<sup>882</sup> (58.29–32); the treatment of mūtrāghāta due to vāta and pitta (58.33–34); twelve recipes against mūtradoṣa<sup>883</sup> and āsmaṛī (bladder stones) (58.35–49ab); general treatment of mūtradoṣa (58.49cd–50); treatment of haematuria resulting from sexual excesses (58.51–52); a medicated ghee against mūtradoṣa (58.53–57); the preparation of balāghṛta, useful in cases of mūtradoṣa (58.58–62ab);<sup>884</sup> a variety of balāghṛta to be employed in disorders of the semen (śukradoṣa) in order to restore potency (58.62cd–65ab); the preparation of mahābalāghṛta, to be used against disorders of the semen, as a rasāyana and aphrodisiac (vṛṣya), to promote fertility in women, against disorders of the blood (asṛgadoṣa), yonidoṣa, and mūtradoṣa (58.65cd–72).

Chapter fifty-nine is devoted to mūtrakṛcchra<sup>885</sup> and its management.<sup>886</sup>

The subjects dealt with are: mūtropaghāta (= mūtrakṛcchra), a very distressing disease, is of eight types: due to vāta, pitta, kapha, all three doṣas, traumata, faeces, urinary calculi (āsmarī), and gravel (śarkarā) (59.3);<sup>887</sup> the symptoms of mūtrakṛcchra caused by vāta (59.4),<sup>888</sup> pitta (59.5),<sup>889</sup> kapha (59.6),<sup>890</sup> concerted action of the doṣas (59.7),<sup>891</sup> a trauma (59.8–9ab),<sup>892</sup> retention (pratighāta) of faeces (59.9cd–10ab),<sup>893</sup> urinary calculi (59.10cd),<sup>894</sup> and gravel (59.11–15ab);<sup>895</sup> general treatment (59.15cd–16); treatment of mūtrakṛcchra due to vāta (59.17–20ab),<sup>896</sup> pitta (59.20cd–22),<sup>897</sup> kapha (59.23),<sup>898</sup> all the doṣas (59.25ab),<sup>899</sup> a trauma (59.25cd), (retention of) faeces (59.26), urinary calculi, and gravel (59.27).

Chapter sixty is devoted to afflictions (upasarga) caused by non-human (amānuṣa) agents.<sup>900</sup>

The subjects of this chapter are: as already referred to,<sup>901</sup> patients with sores should always be protected from (malevolent) beings moving about by night (60.3); the general characteristics of persons afflicted by a graha (60.4); these grahas try to hurt those who are impure and transgress (proper) limits (of behaviour),<sup>902</sup> whether or not they are suffering from wounds (kṣata); the aims of these grahas are: the use of violence (himsā), playful activities (vihāra), and getting offerings (satkāra) (60.5);<sup>903</sup> the grahas are innumerable, but their main groups are eight in number: the gods (deva), the enemies of the gods, gandharvas, yakṣas, pitars (manes), bhujāṅgas (serpent deities), rākṣasas, and piśācas (60.6–7);<sup>904</sup> the characteristics of persons visited by a deity (60.8), an enemy of the deities (60.9), a gandharva (60.10), yakṣa (60.11), pitar (60.12), bhujāṅga (60.13), rākṣasa (60.14), and piśāca (60.15);<sup>905</sup> signs indicating incurability (60.16);<sup>906</sup> the periods of time characteristic for possession by each of the eight groups of grahas (60.17–18);<sup>907</sup> the grahas themselves remain invisible when they enter a hu-



man being; their way of getting entrance resembles the formation of an image in a mirror, the penetration of cold and heat into the human body, the penetration of the rays of the sun into a khamāṇi,<sup>908</sup> and the entrance of the ātman into the body (60.19);<sup>909</sup> characteristic features of persons visited by a graha (60.20);<sup>910</sup> the grahas never actually enter a human being; those who are convinced that states of possession exist are fools without proper understanding of bhūtaavidyā (60.21); not the grahas themselves, but their innumerable attendants, living on blood, fat and meat, very dreadful, and roaming about at night, are the ones who take possession of human beings (60.22); these attendants exhibit the same features as their lords; they are the offspring of the daughters of Nirṛti and are called bhūtas (60.23–27ab); bhūtaavidyā is the science concerned with knowledge about the grahas called bhūtas (60.27cd–28ab); treatment should start with the muttering (of mantras), religious observances (niyama), and offerings (homa) (60.28cd–29ab);<sup>911</sup> offerings propitiating all the groups of grahas (60.29cd–30ab); special requirements for the offerings to each type of graha (60.31cd–37ab); treatment by means of drugs should be carried out when the described measures are unsuccessful (60.37cd–38ab); treatment by the use of fumigations (60.38cd–39), snuffs, inunction, sprinklings (60.40–42), and collyria (60.43–46ab); recipes against all kinds of mental disorders (60.46cd–54ab); impure (acaukṣa) articles should never be employed in the treatment of afflictions by grahas, excepting those caused by piśācas (60.54cd–55); a physician should always observe the rules described in the hitāhitīya chapter<sup>912</sup> (60.50).

Chapter sixty-one is devoted to epilepsy (apasmāra) and its management.

The subjects dealt with are: the derivation of the term apasmāra (61.3);<sup>913</sup> aetiology (61.4–6);<sup>914</sup> prodromes (61.7);<sup>915</sup> pathogenesis (61.8–10c);<sup>916</sup> the four types of apasmāra: due to vāta, pitta, kapha, and concerted action of the doṣas (61.10d–11ab);<sup>917</sup> the symptoms of apasmāra due to vāta (61.11cd–12),<sup>918</sup> pitta (61.13–14ab),<sup>919</sup> and kapha (61.14cd–15);<sup>920</sup> the most specific symptom of the types due to vāta, pitta and kapha respectively, and some symptoms common to these three types (61.16); features of all three types are combined in the one caused by all the doṣas collectively (61.17ab);<sup>921</sup> some are of the opinion that apasmāra is not brought about by the doṣas, since it appears and disappears again, even when left untreated, without any apparent cause (61.17cd–18ab);<sup>922</sup> the experts, however, claim that it is caused by the doṣas, firstly because the various stages of their excitement are observed, secondly on account of the momentary character (kṣaṇikatva) of this excitement, thirdly, because of the trustworthy tradition (āgama), and, fourthly, on account of the presence of the signs of all (the aetiological factors) (vaiśvarūpya) (61.18cd–19ab); doṣas are compared to seeds, which, having lain dormant in the earth, manifest themselves under the influence of the rains; although always present, they may increase, after an interval of time, thereby giving rise, in agreement with their inherent nature (nisarga), to various kinds of disorders; for these reasons the serious disease called apasmāra should be regarded as arising from the doṣas (61.19cd–21);<sup>923</sup> apasmāra may in general be treated in the same way as unmāda<sup>924</sup> and afflictions by grahas;<sup>925</sup> old ghee is always to be recommended<sup>926</sup> (61.22–23cd);

a medicated oil for inunction (abhyañjana) (61.23ef-24ab); another medicated oil (61.24cd-25ab); purification along both (upper and lower) routes and evacuation of the head should be carried out (61.25cd); Rudra and his attendants should be worshipped (61.26ab); enemas are useful in the vāta type, purgatives in the pitta type, and emetics in the kapha type (61.26cd-27ab);<sup>927</sup> specific treatment of the types due to vāta (61.27cd-28), pitta (61.29), and kapha (61.30); the preparation and indications of siddhārthakasarpi (61.31-33), pañcagavyasarpi (61.34-37)<sup>928</sup> and bhārgyādisurā (61.38-41ab); phlebotomy and the use of auspicious articles (maṅgalya)<sup>929</sup> are also recommended (61.41cd).

Chapter sixty-two is devoted to insanity (unmāda) and its management.

The subjects dealt with are: the derivation of the term unmāda (62.3);<sup>930</sup> the six types of unmāda: due to one of the three doṣas singly, all the doṣas collectively, mental imbalance, and poison (62.4-5ab);<sup>931</sup> when in an early and not advanced stage, the disease is called mada (62.5cd);<sup>932</sup> the prodromes (62.6-7);<sup>933</sup> the symptoms of unmāda due to vāta (62.8),<sup>934</sup> pitta (62.9),<sup>935</sup> kapha (62.10),<sup>936</sup> and all the doṣas (62.11);<sup>937</sup> the aetiology and symptomatology of unmāda due to mental factors (62.12-13ab);<sup>938</sup> the symptoms of unmāda caused by poisonous substances (62.13cd); general treatment, in particular by purificatory measures (62.14-15);<sup>939</sup> fumigation (62.16ab);<sup>940</sup> the beneficial effect of mustard oil (62.16cd); treatments inducing fright in the patient (62.17-20ab);<sup>941</sup> prescriptions regarding diet (62.20cd-21); the preparation and indications of kalyāṇaghṛta (62.22-24),<sup>942</sup> mahākalyāṇaghṛta (62.25-26)<sup>943</sup> and phalaghṛta (62.27-29);<sup>944</sup> vartis (62.30-32); places for bloodletting (62.33ab);<sup>945</sup> the treatments described for apasmāra and afflictions by grahas may also be carried out (62.33cd);<sup>946</sup> after-treatment by snehabastis (62.34ab); appeasement of the mind is important in all cases of unmāda (62.34cd);<sup>947</sup> mild forms of treatment should be employed in cases of mada (62.34ef); unmāda of mental origin should be treated by the removal of grief (62.35ab);<sup>948</sup> unmāda due to poison requires mild forms of treatment and antidotes (62.35cd).

Chapter sixty-three is devoted to the combinations of the different tastes (rasabhedavikalpa)<sup>949</sup>

The fifteen kinds of prasara of the doṣas, which have already been mentioned,<sup>950</sup> are useful in the context of the classification of the tastes and their combinations (63.3). The tastes, which are, singly and in combination, sixty-three in number, should duly be taken into consideration with respect to treatment of the doṣas, which may be roused singly, in combination, or with part of their properties (bhāgaśas) only, thus also making a total of sixty-three kinds of arousal (63.4-5). The fifteen combinations of two tastes (63.6-8), twenty combinations of three tastes (63.9-10), fifteen combinations of four tastes (63.11-12), and six combinations of five tastes (63.13-14); the combination of all six tastes together (63.15); the six tastes taken separately (63.16).

Chapter sixty-four is devoted to rules concerning the preservation of health (svasthavṛtta).<sup>951</sup>

The subjects dealt with are: the rules for the preservation of health, which have already been outlined in brief in the *Sūtrasthāna*,<sup>952</sup> will be described in more detail in this chapter (64.3–4); substances with particular tastes should be prescribed by taking into account which *doṣa* or *doṣas* are excited in a particular season (64.5); the regimen to be observed during the rainy season (*varṣāḥ*) (64.6–13ab),<sup>953</sup> autumn (*śarad*) (64.13cd–21ab),<sup>954</sup> winter (*hemanta*) (64.21cd–31),<sup>955</sup> spring (*vasanta*) (64.32–40ab),<sup>956</sup> summer (*nīdāgha*) (64.40cd–46ab),<sup>957</sup> and early rains (*prāviṣ*) (64.46cd–55ab);<sup>958</sup> the benefits of observing the seasonal regimen (64.55cd–56ab); the twelve types of diet, useful in particular groups of persons for the preservation of health, as well as in particular types of patients: a diet rich in cold, hot, oleaginous, dry, liquid, or solid foods, one meal or two meals a day, meals with medicines added, meals which are less in quantity than usual, a *doṣa*-appeasing diet, and a normal diet (64.56); groups of persons fit for these twelve types of diet (64.57–64); the enumeration of the ten proper times for the administration of medicines (64.65), their description, indications, and effects: *abhakta* (taken separately, without any food), *prāgbhakta* (before a meal), *adhobhakta* (after a meal), *madhyabhakta* (during a meal), *antarābhakta* (between two meals), *sabhakta* (mixed with food), *sāmudga* (at the beginning and end of a meal), *muhurmuhur* (repeatedly, with and without meals), *grāsa* (with a morsel of food), and *grāsāntara* (between morsels of food) (64.66–83);<sup>959</sup> the proper time for taking a meal (64.84).

Chapter sixty-five is devoted to the *tantrayuktis*.

The thirty-two *tantrayuktis* are enumerated (65.3).<sup>960</sup> Their purpose is to make up sentences (*vākyayojana*) and make them meaningful (*arthayojana*) (65.4). They are useful in refuting false statements and establishing one's own points; they are also meant to elucidate statements which are not clear (*avyakta*), those with a hidden meaning (*līnārtha*), and those with a meaning only hinted at (*leśokta*) (65.5–7).

The thirty-two *tantrayuktis* are defined and illustrated by means of examples: *adhikaraṇa* (65.8),<sup>961</sup> *yoga* (65.9),<sup>962</sup> *padārtha* (65.10),<sup>963</sup> *hetvartha* (65.11),<sup>964</sup> *uddeśa* (65.12),<sup>965</sup> *nirdeśa* (65.13),<sup>966</sup> *upadeśa* (65.14),<sup>967</sup> *apadeśa* (65.15),<sup>968</sup> *pradeśa* (65.16),<sup>969</sup> *atideśa* (65.17),<sup>970</sup> *apavarga* (65.18),<sup>971</sup> *vākyaśeṣa* (65.19),<sup>972</sup> *arthāpatti* (65.20),<sup>973</sup> *viparyaya* (65.21),<sup>974</sup> *prasāṅga* (65.22),<sup>975</sup> *ekānta* (65.23),<sup>976</sup> *anekānta* (65.24),<sup>977</sup> *pūrvapalāṣa* (65.25),<sup>978</sup> *nirṇaya* (65.26–27),<sup>979</sup> *anumata* (65.28),<sup>980</sup> *vidhāna* (65.29),<sup>981</sup> *anāgātāvekṣaṇa* (65.30),<sup>982</sup> *atīkrāntāvekṣaṇa* (65.31),<sup>983</sup> *saṁśaya* (65.32),<sup>984</sup> *vyākhyāna* (65.33),<sup>985</sup> *svasaṁjñā* (65.34),<sup>986</sup> *nirvacana* (65.35),<sup>987</sup> *nidarśana* (65.36),<sup>988</sup> *niyoga* (65.37),<sup>989</sup> *samuccaya* (65.38),<sup>990</sup> *vikalpa* (65.39),<sup>991</sup> and *ūhya* (65.40).<sup>992</sup>

The general features of the *tantrayuktis* have thus been determined; their special features depend on the context (65.41). They have been laid down for the sake of the search for the true meaning of (this) treatise (65.42). Physicians able to understand them properly deserve to be honoured; so says *Dhanvantari* (65.43).

Chapter sixty-six is devoted to the determination of the different combinations of *doṣas* (*doṣabhedavikalpa*).

The chapter opens with *Suśruta* questioning *Divodāsa* on the sixty-two combina-

tions of doṣas, which are referred to earlier in his exposition<sup>993</sup> (66.3–4). He asks how many the doṣas are when grouped together singly, in pairs, or in triads (66.5ab).

Divodāsa proceeds to answer these questions. The three doṣas, the (seven) elements of the body, faeces and urine sustain the body when, due to (the intake of substances with) salutary tastes, they are not vitiated. The individual human being consists of sixteen components (*puruṣaḥ ṣoḍaśakalaḥ*);<sup>994</sup> the *prāṇas* are eleven in number;<sup>995</sup> the diseases are 1,120 in number<sup>996</sup> and the drugs 573; the three doṣas, together with all their combinations, make a total number of sixty-two; these doṣas are predominantly associated with one of the three *guṇas*<sup>997</sup> (66.5cd–9).

Each of the three doṣas may be increased, while the two other ones remain in their normal state; three combinations are possible when two doṣas have increased to an equal degree, and six combinations when the increase of one of the two exceeds that of the other; the number of combinations is thirteen when the three doṣas are involved: they have increased to an equal degree (1), one of them has increased more than the other two (3), two doṣas have increased more than the third (3), and their increases are slight, moderate and excessive respectively (9). This number of twenty-five combinations with increase is matched by a same number of combinations with decrease of one, two or three doṣas, to an equal or unequal degree. The number of combinations with a mixture of increased and decreased doṣas is twelve. Thus a total of sixty-two combinations is reached (66.10–12ab).<sup>998</sup> The combinations of doṣas, elements of the body (*dhātu*) and impurities (*mala*) are innumerable (66.12cd).

A physician should duly give attention to all these combinations, diagnose the disease, and begin treatment with (substances possessing) the proper tastes (66.13). The physician is the agent (*kartar*), the tastes are the means (*karāṇa*), and the doṣas are the causal factors (*kāraṇa*); the aim is health (*ārogya*); anything else is disease (66.14).

Thus the Uttaraṇtra has been expounded and explained. The physician who has duly studied the whole treatise, together with the Uttara(ṇtra), which derives from Brahmā, will realize his wishes, because Brahmā's words come true (66.15–17).

## Chapter 7

### Suśruta and the Suśrutasaṃhitā

#### Persons called Suśruta and their identities

The *Suśrutasaṃhitā* presents a Suśruta who is the son of Viśvāmitra and a pupil of Kāśīrāja Divodāsa Dhanvantari. Apart from this Suśruta, other persons of the same name are known from a variety of Sanskrit sources.

A Suśruta who was the son of Subhāṣa is mentioned as one of the kings of Mithilā in the *Viṣṇupurāṇa*.<sup>1</sup> A quite unrelated Suśruta figures, together with his son Viśruta, in Daṇḍin's *Daśakumāracarita*, which is a work of fiction.<sup>2</sup> More interesting is a Suśruta of the *Mahābhārata*,<sup>3</sup> who is, like the Suśruta of the *Suśrutasaṃhitā*, described as one of the sons of Viśvāmitra.

Important in the context of the discussions on the identity and date of the Suśruta of the *Suśrutasaṃhitā* is the occurrence of the compound sauśrutapārthavāḥ<sup>4</sup> in the *Gaṇapāṭha*, belonging to Pāṇini's *Aṣṭādhyāyī*.<sup>5</sup> This compound is elucidated in Kātyāyana's *Vārttika*,<sup>6</sup> the *Mahābhāṣya*,<sup>7</sup> the *Kāśikāvṛtti*,<sup>8</sup> and Jinendrabuddhi's *Nyāsa*.<sup>9</sup> The sauśrutapārthavāḥ are interpreted as the pupils of Suśruta and Prthu.<sup>10</sup> A *vārttika* of Kātyāyana says that the *Sauśruta* is a work proclaimed by Suśruta.<sup>11</sup> Noteworthy too is the term kutapasauśruta, used in the *Mahābhāṣya*,<sup>12</sup> and explained as denoting a sauśruta wearing the type of warm clothing called kutapa.<sup>13</sup>

Four Suśrutas, connected with the medical science, make their appearance in texts not related to the *Suśrutasaṃhitā*.

A Suśruta belongs to a group of munis, assembled in the Himālayas, in part I of the Bower MS. This Suśruta approaches a person called Kāśīrāja with questions on the nature of a particular medicinal plant, which proves to be garlic. Another Suśruta is found in the *Upāyaḥṛdaya*, ascribed to Nāgārjuna.<sup>14</sup> A third Suśruta, known to the *Bhaviṣyapurāṇa*, is described as the pupil of a Dhanvantari who was born in Kāśī as the son of the brāhmaṇa Kalpadatta; this Dhanvantari, an incarnation of Sūrya, composed a treatise called *Kalpaveda*, which became the model of Suśruta's *Sauśrutatantra*, a medical work in one hundred chapters.<sup>15</sup> A fourth Suśruta, regarded as the son and pupil of Śālihotra, the famous expert on horses, figures in several texts on *aśvaśāstra*.<sup>16</sup>

A person, unrelated to the Suśruta of the *Suśrutasaṃhitā*, but yet sometimes identified with him, is the Suśrotar Medhāvin of the *Bhelasamhitā*.<sup>17</sup>

Suśruta, as a medical authority and pupil of Dhanvantari, is mentioned in the *Agripurāṇa* and *Garuḍapurāṇa*.<sup>18</sup> Suśruta and Caraka are medical authorities in Śrīharṣa's *Naiṣadhacarita*,<sup>19</sup> while Suśruta is known as a medical expert in Ballālasena's *Adbhutasāgara*<sup>20</sup> and Rājasekhara's *Bālarāmāyaṇa*.<sup>21</sup> The claim of P. Rāy,<sup>22</sup> that one of the Jā-

takas is acquainted with Suśruta as a teacher in the university of Kāśī and as a younger contemporary of Ātreya, appears to be unfounded.

A very large number of medical works refer to Suśruta or quote him.

The connections between some of the Suśrutas referred to and the Suśruta of the *Suśrutasaṃhitā* constitute a controversial and vexed issue. The discussions in the secondary literature are complicated and sometimes confused by the distinction of two Suśrutas: an Ādyaśuśruta, Vṛddhasuśruta, Suśruta I, or Suśruta the Elder, the supposed author of a *Sauśrutatantra*, and a Suśruta II or Suśruta the Younger, who rewrote that work, making it into the *Suśrutasaṃhitā*. Some scholars add to the difficulties by calling a later reviser, who may have added the Uttaratantira, Suśruta II or Suśruta the Younger.

A survey of the views on Suśruta's identity should include his father, Viśvāmitra.<sup>23</sup>

The *Suśrutasaṃhitā* itself contains a few passages mentioning father and son by name.<sup>24</sup> Viśvāmitra's paternity with regard to the Suśruta who was a pupil of Dhanvantari is acknowledged in the *Garuḍapurāṇa*<sup>25</sup> and *Bhāvaprakāśa*. The latter treatise embellishes the story, telling that Viśvāmitra urged his son to travel to Kāśī in order to study there with Divodāsa Kāśīrāja, called Dhanvantari; Suśruta complied with his father's request, taking with him one hundred sons of sages.<sup>26</sup>

The Vedic sage Viśvāmitra, already known from the *Ṛgveda*, is nowhere reported to have had a son called Suśruta, which did not prevent some scholars to regard him as Suśruta's father.<sup>27</sup> The same applies to the Viśvāmitra of the *Rāmāyaṇa*,<sup>28</sup> who imparts to Rāma and Lakṣmaṇa the knowledge about divine missiles (divyāstra);<sup>29</sup> this Viśvāmitra, son of king Gādhi, ruled the kingdom of Kānyakubja for some time.<sup>30</sup> The Viśvāmitra of the *Mahābhārata* is by some seen as the proper candidate,<sup>31</sup> or even identified with the Vedic sage and the Viśvāmitra of the *Rāmāyaṇa*.<sup>32</sup> Noteworthy in this context is the tale about a quarrel between Viśvāmitra and Vaśiṣṭha, incorporated in a chapter of the Kalpasthāna of the *Suśrutasaṃhitā*<sup>33</sup> as an explanation of the origin of spiders. This tale, not known from other sources, reflects traditions about Viśvāmitra absent from Vedic literature,<sup>34</sup> but found in the epics.<sup>35</sup> The Viśvāmitra figuring in the Kalpasthāna is still a king (nṛpavara) and has not yet acquired the status of a brāhmaṇa.<sup>36</sup>

The references in the *Suśrutasaṃhitā* itself suggest that the epic Viśvāmitra is thought to be Suśruta's father. The later traditions, represented by Gayadāsa, Dalhaṇa<sup>37</sup> and Bhāvamīśra, are in agreement with this view.

The assertion by an Indian author that Suśruta's father was not the Vedic Viśvāmitra, but a person of the same name who lived in the period of the Upaniṣads,<sup>38</sup> does not contribute to a solution of the problem of his identity. Neither does the hypothesis that he was the Viśvāmitra who is quoted as a medical authority.<sup>39</sup>

The appearance of Suśruta as Viśvāmitra's son in the *Suśrutasaṃhitā* may, in my view, be an expression of the wish to heighten the authority of the work by creating a genealogy connecting one of the protagonists with an ancient sage.<sup>40</sup> The same practice is characteristic of the *Carakasamhitā*.

Many Indian authors<sup>41</sup> are convinced that the sauśrutapārthavaḥ of the *Ganapāṭha* prove that the Suśruta of the *Suśrutasaṃhitā* was known in Pāṇini's time. Such a claim

is unfounded since neither this source nor the later grammatical treatises indicate that a medical authority is meant.<sup>42</sup>

The Suśruta of the Bower MS, also often identified with the Suśruta of the samhitā,<sup>43</sup> is remarkable on account of his association with Kāśirāja, but the context differs entirely from that found in the *Suśrutasamhitā*.<sup>44</sup> The meeting of the sages takes place in the Himālayas, and, most importantly, surgery is not the subject of discussion. The conversation is about the properties of medicinal plants, and Suśruta makes inquiries about those attributed to garlic (laśuna). A group of verses, similar to the laśunakalpa of the Bower MS, expounded by Kāśirāja to Suśruta, is conspicuously absent from the *Suśrutasamhitā*.<sup>45</sup>

The Suśruta of the *Upāyahrdaya* is, according to Yādavaśarman,<sup>46</sup> described as a physician (suvaidyaka) with an expertise regarding medicines (bheṣajakuśala), who enumerates as the six objects (bheṣajadharmā) of the science of medicinal herbs (oṣadhividyā): their names, properties (guṇa), taste (rasa), vīrya, saṃnipāta, and vipāka.<sup>47</sup> This Suśruta is, in spite of his being not a surgeon, sometimes identified with the Suśruta of the *Suśrutasamhitā*.<sup>48</sup>

The Suśruta who, as a son and pupil of Śālihotra, became an expert on horses, is also by some regarded as identical with the surgical specialist of the *Suśrutasamhitā*.<sup>49</sup> The reasoning employed in support is that Śālihotra was not actually Suśruta's father, but his guru, who addressed his pupil as son;<sup>50</sup> more evidence is thought to be found in references to veterinary medicine in treatises on human medicine.<sup>51</sup> Others are undecided on the identity of this Suśruta<sup>52</sup> or consider him to be a different person.<sup>53</sup>

The majority of the persons called Suśruta who have been discussed are distinct from the Suśruta of the samhitā. Exceptions are those mentioned in *Bhāvaprakāśa*, *Bhaviṣyapurāṇa*, *Garuḍapurāṇa*, *Bālarāmāyaṇa*, and *Naiṣadhacarita*.

The Suśruta of the *Suśrutasamhitā* is not only depicted as a son of Viśvāmitra, but also as one of the pupils,<sup>54</sup> actually the most important one, of Kāśirāja Divodāsa Dhanvantari, who, surrounded by a group of sages<sup>55</sup> in his āśrama,<sup>56</sup> answers questions on the art of medicine, in particular on surgery.

The teaching takes place in one and the same hermitage throughout the *Suśrutasamhitā*, whereas, in the *Carakasamhitā*, Ātreya Punarvasu roams about the country.<sup>57</sup> The location of this hermitage is not specified, which has led to speculations about the region where it may have been found.

Hemārājaśarman<sup>58</sup> supposed Divodāsa to have retired to some place in Northern India.<sup>59</sup> He argued that the first of the two arrangements of the seasons, as found in the Sūtrasthāna (Sū.6.7 and 10), points to a northern climate, colder than that of Kāśī. His second argument is drawn from the *Mahābhāṣya*, where the saṁśrutāḥ are characterized as people wearing warm clothing (kutapavāśas).<sup>60</sup> Hemārājaśarman developed this theory because he was convinced that two Suśrutās should be distinguished: a Vṛddhasuśruta, author of a lost *Sauśrutatantra*, and a later Suśruta, who transformed this tantra and made it into the *Suśrutasamhitā*. The second, medical, arrangement of the seasons, regarded as agreeing with a southern climate,<sup>61</sup> derives in his opinion from the later Suśruta.

## The layers of the Suśrutasaṃhitā

Hemarājaśarma belongs to the group of scholars who postulate two Suśrutas and, accordingly, attempt to isolate elements belonging to an older and a younger stratum of the *Suśrutasaṃhitā*. Apart from these two layers, some distinguish a third one, attributed to a reviser who is called Nāgārjuna by Ḍaḥaṇa. Others again assume the presence of two strata, ascribed to Suśruta and the reviser. A few scholars assume a succession of four layers, supposed to derive from Suśruta I, Suśruta II, the reviser, and, finally, Candraṭa, who wrote a *Suśrutapāṭhaśuddhi*.

This state of affairs, liable to give rise to confusion, can best be elucidated by giving a few examples, illustrating the reasonings of a number of authors and their ideas on the age to which particular elements of the *Suśrutasaṃhitā* belong.

A scholar who assumes that one and the same Suśruta first wrote a *Sauśrutatantra*, which was rewritten later and thus transformed into the *Suśrutasaṃhitā*, is R. Śāstrī.<sup>62</sup> He expresses as his opinion that the *Suśrutasaṃhitā* is based on the earlier surgical treatises by those four of the seven pupils of Divodāsa who are mentioned at the end of chapter four of the Sūtrasthāna. The concluding verse of this chapter says that the treatises of Aupadhenava, Aurabhra, Suśruta and Pauṣkalāvata form the basis (mūla) of other works on surgery (śalyatantra). This implies, according to Ḍaḥaṇa, that the śalyatantras of the three pupils called Karavīrya, Gopurarakṣita and Vaitaraṇa, were considered to be less important than that of Suśruta. R. Śāstrī claims that the contents of all four authoritative tantras referred to were incorporated in the *Suśrutasaṃhitā*; the tantras themselves got irretrievably lost, apart from remnants preserved in quotations from the *Sauśrutatantra* or *Ṛddhasuśruta*. The fact that these quotations partially agree, partially disagree with the text of the *Suśrutasaṃhitā* makes R. Śāstrī compare the relationship between Suśruta's tantra and his saṃhitā with that between Vāgbhaṭa's *Aṣṭāṅgasamgraha* and *Aṣṭāṅgaḥṛdayasaṃhitā*.

A scholar distinguishing four layers in the *Suśrutasaṃhitā* is P.V. Sharma,<sup>63</sup> who put forward that Āyasaśruta, the earliest one, also called *Ṛddhasuśruta*, belongs to the period of the Upaniṣads. The description of the initiation of students (Su.Sū.2) is regarded as deriving from this age, although the text as it is known shows that changes have been introduced, as attested by the passage mentioning that, according to some authorities, śūdras may be admitted (Su.Sū.2.5).<sup>64</sup> P.V. Sharma highlights in particular agreements between passages from the *Śvetāśvataropaniṣad* and chapters one and nine of Suśruta's Śārīrasthāna.<sup>65</sup> The Sāṃkhya doctrines of Suśruta (Śā.1) betray in his view, in spite of their being mostly in line with Īśvarakṛṣṇa's *Sāṃkhyakārikā*, influences from an earlier stage, represented by the *Śvetāśvataropaniṣad*.<sup>66</sup> Suśruta divides the twenty-four tattvas into a group of eight, belonging to prakṛti, and a group of sixteen vikāras (Śā.1.6), whereas Īśvarakṛṣṇa adheres to a threefold classification: mūlaprakṛti, seven prakṛtīvikṛtis, and sixteen vikṛtis.<sup>67</sup> One need not agree with P.V. Sharma on this point, since Suśruta's classification of the tattvas was not necessarily influenced by the *Śvetāśvataropaniṣad*; the same classification is found in the *Mahābhārata*, the *Tattvasamāsa*,<sup>68</sup> Aśvaghoṣa's *Buddhacarita*, and the *Bhāgavatapurāṇa*.<sup>69</sup>

P.V. Sharma places Suśruta II in the second century A.D., during the reign of



Gautamīputra Śātakarṇi, a king of the Śātavāhana dynasty.<sup>70</sup> This hypothesis is underpinned by several arguments that will be surveyed.

The Śātavāhanas were brāhmaṇas,<sup>71</sup> and Gautamīputra Śātakarṇi is known as a king who sought to restore the dharmā;<sup>72</sup> the brāhmaṇas and the lower classes were objects of his special care, while the kṣatriyas were repressed as a conceited class. The religious conditions found in the *Suśrutasamhitā* show that Hinduism was predominant, as to be expected during the Śātavāhana dynasty. The story about a conflict between Vaśiṣṭha and Viśvāmitra (Su.Ka.8.90–93) reflects, in P.V. Sharma's opinion, Gautamīputra's hostility to the kṣatriyas. The rather numerous passages of the *Suśrutasamhitā* which refer to a king,<sup>73</sup> the chapter on the surgeon of the royal army (Sū.34), etc., are in favour of regarding Suśruta as a physician living during the reign of a powerful king. P.V. Sharma believes that Gautamīputra is mentioned as Vikrama in the first chapter of the Kalpasthāna (1.4), where enemies attacked by Vikrama may be alluded to.<sup>74</sup>

Many passages give evidence of developments within Hinduism in Suśruta's times. Śiva appears under various names: Bhava (U.57.16);<sup>75</sup> Īśāna (Ci.29.13; U.39.270); Paśupati (Sū.19.23); Śūlin (U.37.4). The worship of Ambikā (U.39.270)<sup>76</sup> and Umā (U.37.4 and 5) is attested.<sup>77</sup> Nāgas are repeatedly referred to,<sup>78</sup> as well as yakṣas<sup>79</sup> and their lord, Kubera (Sū.19.23) or Alakādhīpati (Ka.7.61). The worship of Rāma and Kṛṣṇa began to flourish (Ci.30.27).<sup>80</sup> Viṣṇu is mentioned under the name of Acyuta (Ci.13.26),<sup>81</sup> Sarasvatī as Vāgdevī (Ci.28.5). Temples (Ci.24.93: devāyatana) and images of deities (Śā.3.24: devatāpratimā) are known.

The dominance of Hinduism is shown by numerous references to the Vedas, sacrifices and priests;<sup>82</sup> brāhmaṇas, gurus and cows are to be revered;<sup>83</sup> the four varṇas are mentioned,<sup>84</sup> the gāyatrī<sup>85</sup> and śrīsūkta<sup>86</sup> are referred to; some varieties of the soma plant have names of Vedic origin;<sup>87</sup> a number of saṃskāras are mentioned;<sup>88</sup> tales from the Purāṇas are alluded to;<sup>89</sup> the jāti and gotra systems are referred to.<sup>90</sup>

The presence of some terms indicates that Jains and Buddhists are known.<sup>91</sup>

The prohibitions concerning pratibhū (bail),<sup>92</sup> sāksitva (acting as a witness),<sup>93</sup> samāhvāna (summoning), etc.,<sup>94</sup> reflect a society markedly differing from that in the age of the Guptas.

In support of his hypothesis that Suśruta II lived during the reign of Gautamīputra Śātakarṇi, P.V. Sharma advanced that this Suśruta must have belonged to Southern India,<sup>95</sup> since many geographical names connected with the South are found in the *Suśrutasamhitā*,<sup>96</sup> while they are for the larger part absent from the *Carakasaṃhitā*.<sup>97</sup> Names connected with other regions are, however, far from rare.

Relevant names of countries, mountains, rivers, etc., are: the Arbuda mountain<sup>98</sup> (Ci.29.27; 30.37); the country called Avanti<sup>99</sup> (Sū.45.21); Dakṣiṇāpatha<sup>100</sup> (Ci.4.29); the Devagiri mountain<sup>101</sup> (Ci.29.27); the Devasaha mountain (Ci.29.27); lake Devasunda (Ci.29.28; 30.30); the river Gaṅgā (U.37.5);<sup>102</sup> the Himavanta mountains (Sū.45.21; Ci.29.27); Kāśmīra<sup>103</sup> (Ci.29.30; 30.32); the river Kauśikī<sup>104</sup> (Ci.30.34); lake Kṣudrakamānasa<sup>105</sup> (Ci.29.30; 30.32); the Mahendra mountains<sup>106</sup> (Sū.45.21; Ci.29.27); the Malaya mountains<sup>107</sup> (Sū.45.21; Ci.29.27; 30.36); Nalasetu<sup>108</sup> (Ci.30.36); the Pāṇḍya country<sup>109</sup> (Sū.13.13); the mountain Pāriyātra<sup>110</sup> (Sū.45.21; Ci.29.28); the country called Pautana<sup>111</sup> (Sū.13.13); the mountain Sahya<sup>112</sup> (Sū.13.13);

45.21; Ci.29.27); the river Sindhu (Ci.29.29; 30.30);<sup>113</sup> the mountain Śrīparvata<sup>114</sup> (Ci.29.27); the river Tāpī<sup>115</sup> (Ci.13.17); the people called Uttarakurus<sup>116</sup> (Ci.29.17); the Vindhya mountain range<sup>117</sup> (Sū.45.21; Ci.29.28); the river Vitastā<sup>118</sup> (Ci.29.28); the country of the Yavanas<sup>119</sup> (Sū.13.13).

In contrast with these views of P.V. Sharma, the majority of the scholars who studied the structure and contents of the *Suśrutasaṃhitā* agree that the work is due to two authors and consists of two layers, an early one, attributed to Suśruta, and a later one, deriving from a reviser, who not only rewrote parts of the text, but also added the Uttara-tantra. This reviser is usually referred to as Nāgārjuna.

Some of the early Indologists, who studied MSS of the *Suśrutasaṃhitā* or its editio princeps, expressed disagreeing opinions on the structure of the text. F. Hessler, who translated the *Suśrutasaṃhitā* into Latin,<sup>120</sup> regarded the whole work, its Uttara-tantra included, as composed by one author, a very ancient Suśruta.<sup>121</sup> Others were inclined to see the parts in verse as older than those in prose, which were supposed to form a kind of commentary or complement.<sup>122</sup> An early scholar who clearly stated that the text of the *Suśrutasaṃhitā* consists of layers belonging to various ages and must be the result of a series of revisions was G. Liétard; he also stressed that the Uttara-tantra cannot be but a kind of appendix of a later date.<sup>123</sup>

The opinions put forward on the identity and date of the author who revised an earlier surgical treatise attributed to Suśruta, and who has probably added the Uttara-tantra, are very diverse. The arguments adduced in favour of a particular hypothesis are usually intimately connected with the elements of the *Suśrutasaṃhitā* thought to belong to this reviser. A survey of some of the opinions may be useful in clarifying the complications of the situation.

Atrideva<sup>124</sup> suggested that the following features may be due to a reviser who lived during the Śātavāhana dynasty: the four different colours of the soil on which, dependent on the varṇa of the woman in childbed, the delivery hut (sūtikāgāra) should be constructed (Śā.10.5); the four different kinds of timber from which, dependent on the varṇa again, the hut and the bed should be made (Śā.10.5); the admission of śūdra students to the medical training (Sū.2.5); the reference to the feeding of brāhmaṇas after the preparation of a particular compound medicine (Ci.4.29); the veneration of (Bala)rāma and Kṛṣṇa (Ci.30.27).

P.V. Sharma, who accepts the tradition that the reviser was a Nāgārjuna and places him in the Gupta period, mentions as elements added by him:<sup>125</sup> passages indicating the presence of Pāśupatas,<sup>126</sup> Kāpālikas<sup>127</sup> and Tāntrikas;<sup>128</sup> passages pointing to an increasing influence of astrology;<sup>129</sup> the reference to the viṣakanyā;<sup>130</sup> the use of the term viśikhā;<sup>131</sup> a number of geographical names;<sup>132</sup> the presence of the term kuhaka;<sup>133</sup> the important place of inorganic substances in the materia medica;<sup>134</sup> the use of enigmatic language.<sup>135</sup>

K.R. Srikanta Murthy<sup>136</sup> mentions as elements due to the reviser, whom he supposes to be a Nāgārjuna who lived in the fourth or fifth century: the reference to Subhūti Gautama;<sup>137</sup> the association of the surgeon with the king and his army;<sup>138</sup> the use of mercury as a medicinal substance; the presence of muraṅgī/muruṅgī as a medicinal plant;<sup>139</sup> the names of mountains and rivers found in Southern India.

S. Dasgupta,<sup>140</sup> who accepts that a Nāgārjuna was the reviser, observed that an ardhāśloka, incorporated in the current text of the *Suśrutasaṃhitā* (Ni.3.13ab), is quoted as a variant ascribed to Nāgārjuna in Gayadāsa's commentary (ad Ni.3.12), which may mean that it is an interpolation.<sup>141</sup> Another quotation from Nāgārjuna, found in Narahari's *Vāgbhaṭamaṇḍana*, presents a variant of Ni.8.14 disagreeing with the reading accepted by Gayadāsa and Ḍaḷhaṇa, which is hard to explain, unless we assume that a later reviser changed Nāgārjuna's reading again. S. Dasgupta also suggested that the process of making additions to the *Suśrutasaṃhitā* continued until rather late times. He advanced that parts of the material on *bastikriyā* (Ci.37–38) were still unknown to Cakrapāṇidatta who, though very well conversant with the *Suśrutasaṃhitā*, ignores this material in his commentary on the *Siddhisthāna* of the *Carakasamhitā* and does not use it in his own *Cakradatta*; this made S. Dasgupta infer that the relevant particulars were added in the twelfth century, since Ḍaḷhaṇa did know the material in question and explained it in his commentary.

As remarked earlier, the identity of the reviser, who may have added the *Uttaratantra*, is a controversial issue. Ḍaḷhaṇa, the only commentator to mention his name, calls him Nāgārjuna,<sup>142</sup> but it is difficult to accept this tradition, which dates from a period in which Nāgārjuna had developed into a multifaceted legendary figure. This did, however, not prevent many scholars from expressing their opinion on the question which Nāgārjuna Ḍaḷhaṇa may have had in mind. Others expressed their doubt on the trustworthiness of Ḍaḷhaṇa's assertion or rejected it altogether.

A.F.R. Hoernle<sup>143</sup> appears to have inclined to the view that the Nāgārjuna of Ḍaḷhaṇa was the well-known Buddhist patriarch of that name, often regarded as a contemporary of Kaniṣka. Accordingly, the compendia of Agniveśa and *Suśruta* would, in this theory, have been revised at about the same time.

Jyotir Mitra<sup>144</sup> is one of the contemporary scholars to hold that the Buddhist philosopher Nāgārjuna redacted the *Suśrutasaṃhitā*. S.K. Ramachandra Rao<sup>145</sup> put forward that the reviser may have been the great Mahāyāna master and alchemist Nāgārjuna, who lived in the first century A.D.

Gaṇanāthasena<sup>146</sup> identified the reviser as Siddhanāgārjuna, author of *Lohaśāstra*, *Kakṣapuṭa*, etc., whom he assigned to the beginning of the Christian era. Similarly, G.P. Srivastava<sup>147</sup> regarded the Buddhist chemist Nāgārjuna, placed by him in the first century B.C. or the first century A.D., as the reviser and the author of the *Uttaratantra*. Bāpāl Vaidya<sup>148</sup> and Umeśacandragupta<sup>149</sup> claimed that Siddhanāgārjuna, assigned to the beginning of the Christian era, was the proper candidate. P.S. Sankaran<sup>150</sup> chose the chemist Nāgārjuna who lived during the reign of Kaniṣka, R. Śāstrī<sup>151</sup> the Nāgārjuna who lived during the Śātavāhana dynasty.

J. Filliozat,<sup>152</sup> who accepted as a possibility that the reviser was indeed a Nāgārjuna, suggested that he may have been the author of the *Yogaśataka*, who lived in the sixth century, or the Nāgārjuna of the tenth century, mentioned by al-Bīrūnī.<sup>153</sup> O.P. Jaggi<sup>154</sup> showed to have a preference for the Nāgārjuna of al-Bīrūnī.

P.V. Sharma<sup>155</sup> argues that the revision of the *Suśrutasaṃhitā* and the addition of the *Uttaratantra* are due to a Nāgārjuna who lived during the Gupta period, in the fifth century. His arguments are: the *tantrayuktis* (U.66) are borrowed from the

*Kauṭīliya Arthaśāstra*;<sup>156</sup> the author of the *Uttaratantra* made use of *Dr̥ḍhabala*'s contributions to the *Carakasamhitā*; *Vāgbhaṭa* was acquainted with the *Uttaratantra*. P.V. Sharma regards this fifth-century *Nāgārjuna* as the author of a *Lohaśāstra* and the *Rasavaiśeṣikasūtra*. An alternative solution is, according to the same scholar, that the name of *Nāgārjuna* became associated with the *Suśrutasaṃhitā* because the *Nāgārjuna*, known as a friend and counsellor of the Śātavāhana king *Gautamīputra Śātakarṇi*, was a contemporary of *Suśruta* II.

K.R. Srikanta Murthy<sup>157</sup> employs some of the same arguments as P.V. Sharma. He regards a physician *Nāgārjuna*, who belongs to the fourth or fifth century, as the most probable candidate and credits him with a series of medical treatises. This *Nāgārjuna* was in his opinion a Buddhist scholar who had many followers known as the *Nāgārjunīyas*.

G. Hāldār<sup>158</sup> rejected *Ḍalhaṇa*'s claim and developed his own theory by distinguishing an early *Suśruta*, author of the *Sauśrutatantra*, and a *Navīnasuśruta*, who revised this tantra and made it into the *Suśrutasaṃhitā*. He regarded the quotations from a *Vṛddhasuśruta* as evidence proving that an earlier version of the *saṃhitā* once existed. He was also convinced that the early tantra dealt with all eight divisions of *āyurveda* and that the *Uttaratantra* has not been added later, but already formed part, in a shorter version, of the original work. The *Navīnasuśruta*, who revised the tantra and expanded it, was in his view *Kāpilabala*, the son of *Kapilabala*, who lived during the reign of *Kaṇiṣka* in the second century A.D.<sup>159</sup> G. Hāldār repudiated *Ḍalhaṇa*'s identification of the reviser, arguing that *Nāgārjuna*, as a Buddhist, would have left traces of Buddhist thought in the *Suśrutasaṃhitā*; the absence of these vestiges made him see *Ḍalhaṇa*'s claim as untrustworthy.

*Hariprapanna*<sup>160</sup> is another author who categorically refuted *Ḍalhaṇa*'s claim, considering it to carry no value from a historical point of view. *Atrideva*<sup>161</sup> also held that the reviser was not *Nāgārjuna*, but someone whose name remains unknown.

*Hemarājaśarman*<sup>162</sup> developed his own theory on the author of the *Uttaratantra*. He called attention to the absence of colophons, of the same type as those in the *Carakasamhitā*, pointing to a revision of the *Suśrutasaṃhitā*.<sup>163</sup> He also stressed that an interest in surgery cannot be detected in any of the writings attributed to authors called *Nāgārjuna*. The presence of *Suśruta* as a physician interested in the properties of medicinal substances in the *Upāyahr̥daya*,<sup>164</sup> by some ascribed to *Nāgārjuna*, pleads against the latter's involvement in the *Suśrutasaṃhitā*. Moreover, Buddhist influences are entirely lacking in *Suśruta*'s work. Decisive evidence is, according to *Hemarājaśarman*, found in a MS of the *Suśrutasaṃhitā*, dating from the year 633 of the Newar era (A.D. 1511). The colophon of this MS reads, at the end of the *Kalpasthāna*, 'suśrute śalyatantre'; the colophon at the end of the appended *nighaṇṭu* has 'sauśrutyaṃ saṃhitāyāṇi mahottarāyāṃ'. *Hemarājaśarman* concluded from this that the *Uttaratantra* was added to *Suśruta*'s text by a *Sauśrutācārya* belonging to *Suśruta*'s lineage; the *nighaṇṭu* must have been written by the same *ācārya*, because items found in the *Uttaratantra* only are incorporated in it. *Hemarājaśarman* supposed that this *ācārya* revised *Suśruta*'s text by filling in incomplete parts. He suggested that the *Sauśrutācārya* of the MS he studied was one of the *sauśrutas* mentioned in the

*Mahābhāṣya*.<sup>165</sup>

Yādavaśarman<sup>166</sup> refused to acknowledge the Uttaratāntra as a later addition to the *Suśrutasamhitā*. This scholar adduces as an argument in support of his thesis that the *Harivaṃśa*<sup>167</sup> describes Dhanvantari as having divided the āyurveda into eight branches and taught it to his pupils; this implies that he also gave instruction in the subjects dealt with in the Uttaratāntra. The thesis that Dhanvantari's teachings, embodied in the *Suśrutasamhitā*, comprise all the divisions of āyurveda and not only surgery (śālya), is thought to be supported by the verse (Sū.1.21) where Dhanvantari proclaims that he has re-appeared in the world in order to teach śālya, along with the other āṅgas.<sup>168</sup> Dāhṇa's reference to the commentators Sukīra and Sudhīra, who regarded particular verses of the Uttaratāntra (U.58.58–65ab) as genuine (ārṣa), is considered to constitute additional evidence, as well as a verse of the Uttaratāntra (U.40.7), where Kāśīrāja defends his own view against that of other authorities. Yādavaśarman arrives at the conclusion that the original Uttaratāntra got partially lost and was completed again by some later author (a Nāgārjuna or a member of Suśruta's school); an alternative possibility is that it was a rather short work, expanded later.

Yādavaśarman's exposition is acknowledged with approval by Sūramcandra.<sup>169</sup>

Ideas similar to those of Yādavaśarman have been expressed by Bhishagratna, one of the translators of the *Suśrutasamhitā* into English.<sup>170</sup> Although accepting a revision by Nāgārjuna, Bhishagratna considered the Uttaratāntra to have formed an integral part of the original treatise. He asserted that it would be unthinkable for Divodāsa to fall short of his duties by omitting to instruct his pupils in all the divisions of medicine which are listed and specified in the first chapter of the Sūtrasthāna.<sup>171</sup> He added that the general plan of the work shows that the more elementary topics were dealt with in the first five sections, while the discussion of those requiring a more advanced knowledge were reserved for the Uttaratāntra, which has the nature of a supplement.<sup>172</sup> Bhishagratna identified the reviser Nāgārjuna as the founder of the Mādhyamika school of Buddhist philosophy and placed him in the latter part of the fourth century B.C.

The Chronology Committee of the National Institute of Sciences of India concluded that a Nāgārjuna who belonged to the third or fourth century revised a much older work by Suśruta.<sup>173</sup>

Authors accepting that the *Suśrutasamhitā* was redacted by a Nāgārjuna, but who did not reach a decision as to his identity and date are: D. Chattopadhyaya,<sup>174</sup> P. Cordier,<sup>175</sup> R.C. Majumdar,<sup>176</sup> P. Rāy c.s.,<sup>177</sup> and S.N. Sen.<sup>178</sup>

Some scholars assert that the text of the *Suśrutasamhitā* as known to us represents the version made by Candrāṭa in the tenth century.<sup>179</sup> This thesis, developed first by P.V. Sharma, makes the current text identical with Candrāṭa's *Suśrutapāṭhaśuddhi*, which was, according to Candrāṭa's own information, based on Jejjāta's commentary.<sup>180</sup> Elements which, in P.V. Sharma's opinion, derive from Candrāṭa are: a theoretical digression on the doṣas (Sū.24.11);<sup>181</sup> the concept of blood as the fourth doṣa;<sup>182</sup> the procedures for the purification of turbid water and the cooling down of water (Sū.45.17–19);<sup>183</sup> the references to epidemic diseases as aupasargikaroga (Ni.5.34)<sup>184</sup> and maraka (Sū.6.17); the mention of aśvabalā as a medicinal plant (Sū.46.256).<sup>185</sup>

As is obvious from the foregoing, it is rather generally assumed that we owe the main part of the *Suśrutasaṃhitā* or an earlier version of it to a historical person called Suśruta. This assumption, however, is not based on uncontrovertible evidence and may be illusory. The text of the *Suśrutasaṃhitā* does not warrant that the one who composed it was a Suśruta. The structure of the treatise shows without ambiguity that the author, who created a coherent whole out of earlier material, attributed the teachings incorporated in his work to Kāśirāja Divodāsa Dhanvantari, a mythic personality.<sup>186</sup> Suśruta himself too is, as the son of Viśvāmitra, embedded in legendary tales. Both figures may have been selected to give authority to the treatise. Another reason for the choice of the name Suśruta may have been that it means 'the famous one' or 'who listened (to his teacher) in the right way'.<sup>187</sup>

The positions of Divodāsa Dhanvantari and Suśruta in the *Suśrutasaṃhitā* tally with those occupied by Ātreya Punarvasu and Agniveśa in the *Carakaṃhitā*, which supports the thesis that they are literary fictions.<sup>188</sup>

The honorific epithets given to Suśruta are in favour of this view,<sup>189</sup> since it is not likely that an author refers to himself as an ṛṣi<sup>190</sup> (Ci.2.3), or as one who is śubha and vinayopapanna (Ni.7.3).<sup>191</sup>

The appearance of a king of Kāśī as a medical expert is not a unique feature of the *Suśrutasaṃhitā*. Other royal sages, connected with Kāśī, such as Vāmaka<sup>192</sup> and Vāryovida, are known from the *Caraka-* and *Kāśyapaṃhitā*, though without being characterized as surgeons. Both Vāmaka and Vāryovida are conspicuously absent from the *Suśrutasaṃhitā*.

Kāśī is sometimes depicted as an ancient centre of medical learning, in particular surgery.<sup>193</sup> A.F.R. Hoernle<sup>194</sup> emphasized that at least the origin of ophthalmic surgery is placed by Indian tradition in Eastern India, in Bihar, being credited to Nimi, lord of Videha. Buddhist literature, on the other hand, does not picture Kāśī as a centre of instruction in surgical skills, but mentions, instead, Takṣaśilā.<sup>195</sup>

### Dates assigned to the *Suśrutasaṃhitā*

Before turning to the structure and contents of the *Suśrutasaṃhitā* and the internal and external evidence on its layers and their dates, it may be useful to give a survey of the opinions in the secondary literature on the chronological positions of the one or more *Suśrutas* and the reviser of the *saṃhitā*.

One of the earliest scholars to give his opinion on the date of the *Suśrutasaṃhitā* was H.H. Wilson, who stated that the work cannot have the prodigious age, which Hindu fable assigns to it;<sup>196</sup> he thought that, because Suśruta is mentioned in the *Purāṇas*, the ninth or tenth century was the most modern conjectural limit, while the style indicates a long anterior date.<sup>197</sup> Later, he became acquainted with the discovery, made by F.R. Dietz in 1833, that Suśruta was known in the Muslim world during the rule of Hārūn al-Raṣḥīd.<sup>198</sup> J.A. Vullers<sup>199</sup> misinterpreted Wilson's remarks, making him declare that Suśruta lived in the ninth or tenth century B.C. at the latest.

A. Stenzler<sup>200</sup> reached about the same conclusions as H.H. Wilson. Stenzler pointed to the fact that Ibn Abī Uṣaybi'a explicitly states that Suśruta's treatise was

translated into Arabic by order of Yaḥyā ibn Kḥālīd,<sup>201</sup> who died in the beginning of the eighth century, which establishes the lower limit for Suśruta. Stenzler brought forward, as his own opinion, that the *Suśrutasaṃhitā*, considering its style and the metres used, might date from some centuries after Christ.

Ch. Lassen<sup>202</sup> advanced that the parts in verse of the *Suśrutasaṃhitā* may belong to a slightly later period than the epics. A. Weber<sup>203</sup> remarked that the work of Suśruta exhibits a certain affinity to the writings of Varāhamihira.

An author to give a very early date to the *Suśrutasaṃhitā*, namely the tenth century B.C., was F. Hessler,<sup>204</sup> whose arguments were convincingly refuted by A. Weber<sup>205</sup> and G. Liétard.<sup>206</sup> T.A. Wise<sup>207</sup> placed Suśruta between the ninth and third centuries B.C.

An extreme view was expressed by E. Haas,<sup>208</sup> who tried to demonstrate that āyurveda heavily borrowed from the medical science of the Muslims, in its turn based on Greek medicine. He was convinced that the name Suśruta had developed from the Arabic equivalents of the name of the Greek father of medicine, Hippocrates. He denied that Suśruta was known in the Muslim world in the eighth century, and considered him to belong to the twelfth century. The reasonings of E. Haas were invalidated by A. Müller.<sup>209</sup>

J. Jolly<sup>210</sup> brought forward that the Arabic translation of the *Suśrutasaṃhitā* proves that a work closely resembling the version known to us existed in the seventh century, while the style with its mixture of prose and verse is reminiscent of Varāhamihira.

A.F.R. Hoernle,<sup>211</sup> who distinguished an original Suśruta and a Suśruta II, the reviser who added the Uttaratāntra, regarded the former as the pupil of a Kāśīrāja who was a teacher in the university of Kāśī in Buddha's times. He argued that Suśruta was acquainted with the osteological system of Ātreya,<sup>212</sup> the leading professor of medicine at the university of Takṣaśilā in the time of Buddha or shortly before, which proves that the former was a younger contemporary of the latter. He moreover advanced that the author of the *Śatapathabrāhmaṇa*, placed in the sixth century B.C., was conversant with the doctrines of Suśruta.<sup>213</sup> Hoernle proposed for these reasons the sixth century B.C. as the date of the original Suśruta.

G. Liétard<sup>214</sup> was cautious with regard to the chronological position of the *Suśrutasaṃhitā* in the extant form. This author refrained from assigning a date to the original work and gave as his estimate that the revised version or a treatise closely resembling it probably existed about the beginning of the Christian era.

A.A. Macdonell<sup>215</sup> suggested that Suśruta cannot be later than the fourth century A.D., because the Bower MS contains passages not only parallel, but verbally agreeing with, passages in the *Suśrutasaṃhitā*.<sup>216</sup>

P. Cordier<sup>217</sup> accepted Hoernle's claim that the Suśruta of the Bower MS is identical with the one of the *Suśrutasaṃhitā*, which explains his conclusion that the *saṃhitā* in its original form is earlier than A.D. 400 and may date from the first century.

M. Vallauri<sup>218</sup> placed the *Suśrutasaṃhitā* in the fifth or sixth century A.D. O. Botto<sup>219</sup> prefers the period between the second and fourth centuries.

Indian authors usually place the author of the original version of the *Suśrutasaṃhitā*, Suśruta I or Vṛddhasuśruta, in early times. Dates mentioned are: 2000 to 3000

B.C.;<sup>220</sup> 2000 B.C.;<sup>221</sup> the period between 1500 and 1000 B.C.;<sup>222</sup> 1200 B.C.;<sup>223</sup> earlier than the period of the *Mahābhārata* (1000 B.C.);<sup>224</sup> 1000 B.C.;<sup>225</sup> not later than 1000 B.C.;<sup>226</sup> about 1000 B.C.;<sup>227</sup> the period of the *Atharvaveda*;<sup>228</sup> the period of the Upaniṣads;<sup>229</sup> one hundred years before Rāma;<sup>230</sup> a period up to three hundred years after the *Mahābhārata*;<sup>231</sup> 1000 years before the beginning of the Śaka era;<sup>232</sup> the sixth or seventh century B.C. as the lower limit;<sup>233</sup> at least two centuries before the birth of Buddha;<sup>234</sup> the period before the rise of Buddhism;<sup>235</sup> the period between 1000 and 600 B.C.;<sup>236</sup> earlier than Pāṇini;<sup>237</sup> earlier than Kātyāyana, dated in this case to the late sixth or early fifth century B.C.;<sup>238</sup> about 600 B.C.;<sup>239</sup> about 500 B.C.;<sup>240</sup> later than the sixth century B.C.;<sup>241</sup> the last few centuries B.C.<sup>242</sup>

### The structure of the *Suśrutasaṃhitā*

The text of the *Suśrutasaṃhitā* itself indicates that the treatise consists of five sections (sthāna), with a total of 120 chapters, and an Uttaratantra in sixty-six chapters.<sup>243</sup> The treatise is said to be an abbreviation, for the use by human beings with a restricted life span, of the original āyurveda of Svayambhū (i.e., Brahṃā) in 100,000 verses and 1,000 chapters, which already existed before this deity created the living beings.<sup>244</sup>

The total number of chapters of the first five sthānas is not accidental. The same number, though differently distributed over the respective sections, is a characteristic feature of *Carakasamhitā*, *Bhelasaṃhitā*, *Kāśyapasaṃhitā* (without the Khilasthāna), and *Aṣṭāṅgahridayasaṃhitā*.

A table of contents, which includes the Uttaratantra, is found in chapter three of the *Sūtrasthāna*.<sup>245</sup>

It has long been noticed that the way in which the extent and contents of the two distinct portions of the *samhitā* are treated may mean that the first and main portion on surgery is more original than the second one, the Uttaratantra, devoted to the other branches of āyurveda, which gives the impression of being an addition.<sup>246</sup> The concluding verses of the last chapter of the *Kalpasthāna* and the introductory verses of the first chapter of the Uttaratantra seem to support this view; if correct, this implies that all the references to the Uttaratantra in the preceding sections are due to a later author, the one who added the Uttaratantra. The problems relating to this subject will be discussed later in this section.

The *Suśrutasaṃhitā* is primarily a treatise on surgery (śalya),<sup>247</sup> which for that reason occupies the first place<sup>248</sup> on the list of the eight divisions (aṅga) of āyurveda.<sup>249</sup>

The *Sūtrasthāna* is devoted to surgical subjects (chapters 5, 7–9, 11–14, 16–19, 21–23, 25–27, 37), basic medical concepts (1–4, 6, 10, 15, 20, 24, 35–36, 40, 42), signs indicating a bad prognosis (ariṣṭajñāna; 28–33), the duties of a royal physician (34), and dravyaguṇa (38–39, 41, 43–46). Differences with the *Sūtrasthāna* of the *Carakasamhitā* are the inclusion of a chapter on the teaching of āyurveda and the initiation of students (Sū.2), a subject dealt with in Caraka's *Vimānasthāna*, chapters on ariṣṭas, discussed in Caraka's *Indriyasthāna*, and the absence of chapters describing particular groups of diseases.

The *Nidānasthāna* is distinct from the corresponding section of the *Carakasamhitā*



in being much longer and describing a larger number of diseases. The disorders discussed are for a large part selected because they belong to the domain of surgery, but this criterion does not fully explain the contents. Diseases like kuṣṭha (Ni.5) and prameha (Ni.6), the only ones also dealt with in Caraka's Nidānasthāna, form part of kāyacikitsā; the same applies to vātavyādhi (Ni.1). Remarkable is the presence of a chapter on mukharoga (Ni.16), one of the subjects of śālākya.<sup>250</sup> The chapter on kṣudrarogas (Ni.13) was already a problem to the commentators, since the Nidānasthāna is, in general, about major diseases (mahāvvyādhi).<sup>251</sup>

The Śārīrasthāna corresponds partly to the same section of the *Carakasamhitā*. It differs by the incorporation of chapters on the marmans, sirās, phlebotomy, and the dhamaṇīs; some of these subjects are discussed in Caraka's Vimānasthāna.

The Cikitsāsthāna opens with two chapters on the treatment of vranas. Chapter three is devoted to the treatment of bhagna, while its aetiology is found in chapter fifteen of the Nidānasthāna. Chapters four to twenty-two are about the therapy of the diseases discussed, in the same order, in chapters one to fourteen and sixteen of the Nidānasthāna. Chapter twenty-three, on śopha, has parallels in Caraka's Sūtra- and Cikitsāsthāna. The contents of chapter twenty-four are similar to those of chapter five of Caraka's Sūtrasthāna. Chapter twenty-five is without a parallel in Caraka's treatise. Chapters twenty-six to thirty are about vājīkaraṇa and rasāyana,<sup>252</sup> which are the subjects of the first two chapters of Caraka's Cikitsāsthāna. Chapters thirty-one to forty are concerned with pañcakarman and related topics, discussed in some chapters of the Sūtrasthāna and in the Siddhisthāna of the *Carakasamhitā*.

The Kalpasthāna is dissimilar from the same section of the *Carakasamhitā* and is about toxicology (viṣatantra),<sup>253</sup> a subject to which one chapter of Caraka's Cikitsāsthāna is devoted.

The Uttaratantra is about subjects belonging to śālākya (chapters one to twenty-six), kaumārabhr̥tya (chapters twenty-seven to thirty-eight), kāyacikitsā (chapters thirty-nine to fifty-nine), and bhūtavidyā (chapters sixty to sixty-two).<sup>254</sup> The concluding chapters are concerned with rasabhedavikalpa, svasthavṛtta, the tantrayuktis, and doṣabhedavikalpa (chapters sixty-three to sixty-six), subjects treated in the Sūtra- and Siddhisthāna of the *Carakasamhitā*.

#### The text of the Suśrutasaṃhitā. Quotations from Suśruta

The text of the *Suśrutasaṃhitā* presents many problems deserving serious attention. A critical edition, highly desirable, does not exist so far.<sup>255</sup> The remarks on the text, its variants and alternative readings, etc., found in the commentaries of Gayadāsa, Cakrapāṇi and Ḍalhana, provide valuable information and show that there were numerous disagreements on the correct readings, the genuineness or spuriousness of particular passages in verse or prose, the order of the chapters, etc.

The extant text exhibits features which unmistakably indicate that earlier traditions and treatises were known. Diverging opinions, held by various unnamed authorities, are repeatedly referred to.<sup>256</sup> The school of the vedavādinah is mentioned once.<sup>257</sup> Opinions attributed to particular authorities do occur,<sup>258</sup> but are less frequent than in

the *Carakasamhitā*.

The *Suśrutasaṃhitā* is undeniably the work of an author who put to use and drew on a number of sources at his disposal. The commentaries contain hints pointing to at least part of these sources. Among them were the works of Bhāluki and Bhoja, employed in composing the chapters on surgical instruments, as is attested by quotations in the commentaries of Cakrapāṇi and Ḍalhaṇa. These quotations give evidence of a much more detailed knowledge on the subject in the treatises of these predecessors.<sup>259</sup> Cakrapāṇi remarks that a particular verse of the *Suśrutasaṃhitā*<sup>260</sup> has been borrowed from Bhoja, while Gayadāsa identifies a verse<sup>261</sup> as coming from another treatise.

The large body of quotations from Suśruta, either by name or anonymously, in commentaries and later medical treatises, should also be taken into consideration in studies concerning the text of the saṃhitā and the versions that circulated in various periods.

The *Mādhavanidāna*, for example, contains many verses, taken from the *Suśrutasaṃhitā*, which present variants. Part of these variants are recorded in Ḍalhaṇa's *Nibandhasaṃgraha*, but others are absent there and would have remained unknown otherwise. The same applies to the quotations in the *Madhukośa* on the *Mādhavanidāna*.<sup>262</sup> Another treatise containing quotations from Suśruta which present variants, as well as a number of untraceable passages in prose and verse attributed to Suśruta, is Anantakumāra's *Yogaratanasamuccaya*.<sup>263</sup>

Ṭoḍara's *Āyurvedasaukhya* presents a number of unidentified quotations from Suśruta.<sup>264</sup> In spite of their being unidentified by the editors of the text, they cannot be regarded as evidence for an unknown version of the *Suśrutasaṃhitā* without a large dose of caution, since part of them can be traced and are closely related to readings of the current text.<sup>265</sup> Some of the passages ascribed to Suśruta are noteworthy and interesting. One verse is almost identical with a śloka of the *Carakasamhitā*.<sup>266</sup> Two other verses reproduce a recipe, called pippalyādighṛta, found in Tīsaṭa's *Cikitsākalikā*; this prescription is probably attributed to Suśruta because a pippalyādighṛta, containing largely the same ingredients, but differently worded, does form part of the *Suśrutasaṃhitā*.<sup>267</sup> More difficult to explain is the attribution of two verses from the *Suśrutasaṃhitā* to Ātreya.<sup>268</sup>

Suśruta's treatise may have been known in versions that differed as to their extent. A *Laghusuśruta* is recorded in a list of MSS.<sup>269</sup> A *Kṛṣasusuśruta* is quoted in Meghadeva's commentary on Mādhavakavi's *Mādhavadravayagūṇa*. The Navīnasuśruta, cited by Vallabhabhaṭṭa in his commentary on Sārṅgadharma's *Trīśaṭi*,<sup>270</sup> is obviously the author of the Uttaratantra, because the quotation refers to one of the viśama-jvaras.<sup>271</sup>

The quotations from *Vṛddhasuśruta*, which are often regarded as being from the early, original work, are actually from a version that included the Uttaratantra.<sup>272</sup> These quotations are found in the *Āyurvedābhidhīśāra*,<sup>273</sup> *Bhāvaaprakāśanighaṇṭu*,<sup>274</sup> *Bhāvaaprakāśa*,<sup>275</sup> *Bhojanakūtūhala*,<sup>276</sup> *Bṛhadyogatarāṅgiṇī*,<sup>277</sup> Ḍalhaṇa's *Nibandhasaṃgraha*,<sup>278</sup> *Jvaranirṇaya*,<sup>279</sup> *Jvaratimirabhāskara*,<sup>280</sup> Niścala's *Ratnaprabhā*,<sup>281</sup> *Sāli-grāmanighaṇṭu*,<sup>282</sup> the commentary on the *Siddhāntanidāna*,<sup>283</sup> Śivadāsa's commentaries on the *Carakasamhitā*<sup>284</sup> and *Cakradatta*,<sup>285</sup> Śrīdāsaapaṇḍita's commentary on

the *Aṣṭāṅghrdayasaṃhitā*,<sup>286</sup> Śrīkaṇṭhadatta's commentary on the *Siddhayaoga*,<sup>287</sup> Ṭoḍara's *Āyurvedasaṃhita*,<sup>288</sup> Vācaspati's *Ātānkadarpaṇa*,<sup>289</sup> Vallabhabhaṭṭa's commentary on Śārngadhara's *Triśaṭī*,<sup>290</sup> and Vijayarakṣita's part of the *Madhukośa*.<sup>291</sup> The *Sauśrutatantra*, mentioned by Ḍalhaṇa,<sup>292</sup> is simply the *Suśrutasaṃhitā*.

#### The reviser of the Suśrutasaṃhitā and the position of the Uttaratāntra

As already repeatedly stated, the *Suśrutasaṃhitā* is usually regarded as a work consisting of two or more strata, which belong to different periods. The tradition that an original treatise by a historical Suśruta was later revised and transformed into the *Suśrutasaṃhitā* as we know it is already found in the commentaries of Cakrapāṇidatta and Ḍalhaṇa. The identity of this reviser, his date, and the question whether or not the same reviser added the Uttaratāntra to an earlier version ending with the Kalpasthāna, are controversial issues.

The very first mention of a reviser (*pratisaṃskartar*) is found in the commentary of Cakrapāṇi (ad Su.Sū.1.1–2), who discusses the characteristics of sūtras to be ascribed to him. Ḍalhaṇa repeats Cakra's statements, adding that the reviser was Nāgārjuna. These two references are the only direct testimonies of the tradition that an older text was later expanded. The so-called *pratisaṃskartṛsūtras*,<sup>293</sup> and the classification of the sūtras in general, were, however, already disputed issues in the times of Cakra and Ḍalhaṇa, and even earlier, in the time of Gayadāsa, as is evident from the commentaries.

The question discussed concerns the nature of the statement at the beginning of a chapter: "we are going to set forth the chapter on ... , as bhagavant Dhanvantari has expounded it". The opinions are divided on the problem whether this type of statements should be attributed to Suśruta himself who addresses his pupils or to a *pratisaṃskartar*. Gayadāsa, Cakrapāṇi and Ḍalhaṇa held them to be *pratisaṃskartṛsūtras*. This decision appears to be based on the belief that the *Suśrutasaṃhitā* possesses the same structure as the *Carakasāṃhitā*, which is a recast of an earlier tantra. Many recent scholars expressed a similar opinion, claiming that the *Suśrutasaṃhitā* is a recast of an earlier *Sauśrutatantra*.

A verse, often discussed in this context, is Su.Sū.4.9. This verse refers back to a śloka that precedes it (Su.Sū.4.7), which declares that a physician should study more than one śāstra; Sū.4.9 states that the *Aupadhenava*-, *Aurabhra*-, *Sauśruta*- and *Paṣkalāvatatantra* form the basis of the other śālyatantras. The verse is variously interpreted; some regard it as proving that a *Sauśrutatantra*, now lost, once existed, while others suggest that the *Suśrutasaṃhitā* incorporates the contents of the four tantras mentioned. In my view, the stanza does not point to a *Sauśrutatantra*, distinct from the *Suśrutasaṃhitā*, but to that *saṃhitā* itself; otherwise, it would conflict with Su.Sū.4.7. Another point to be considered is that the verse mirrors the references of the *Carakasāṃhitā* to the treatises composed by each of the pupils of Ātreya Punarvasu.

The quotations from *Vṛddhasuśruta*, adduced in the same context by many authors, do not allow us to conclude to the early existence of a work that preceded the *Suśrutasaṃhitā*.

The *Suśrutasaṃhitā* is most probably the work of an unknown author who drew much of the material he incorporated in his treatise from a multiplicity of earlier sources from various periods. This may explain that many scholars yield to the temptation to recognize a number of distinct layers and, consequently, try to identify elements belonging to them. As we have seen, the identification of features thought to belong to a particular stratum is in many cases determined by preconceived ideas on the age of the strata and their supposed authors.

It seems therefore to be more sensible and profitable to examine each verse and prose passage on its own merits, without immediately proceeding to attribute them to a particular author to whom we owe a particular layer of the *Suśrutasaṃhitā*.

In general, it appears to be hazardous to claim that concepts, terms, etc., which convey the impression of being old, belong to an ancient stratum, for they may well have been used deliberately in order to give a particular flavour to the text.

In the same way as the *Carakasamhitā*, but less pronouncedly, the *Suśrutasaṃhitā* displays a tendency to associate medical science with the Vedas. The work begins with a chapter entitled 'the origin (utpatti) of the veda'. This veda, i.e. the āyurveda, is said to be an upāṅga of the *Atharvaveda*.<sup>294</sup> The four Vedas are referred to as well.<sup>295</sup> A trend conflicting with the Vedic connotations is the appearance of Dhanvantari,<sup>296</sup> re-born as Kāśīrāja Divodāsa. In the mythic tale about the transmission of āyurveda,<sup>297</sup> he received the āyurveda from Indra, who received it from the Aśvins, who, in their turn, were instructed by Prajāpati, whose teacher was Brahmā, the original promulgator of the science.<sup>298</sup>

The material relating to myths, legends, etc., found in the *Suśrutasaṃhitā*, is thus clearly of a composite nature, drawn from various sources, and partly embellished with details not occurring elsewhere.<sup>299</sup>

Some authors, who want to lay stress on the scientific attitude of Suśruta, assert that he tried to cast off whatever shackles of priestly domination remained at his time.<sup>300</sup> This claim is unjustified, since many passages give evidence of the prominent position of brāhmaṇas. One of these passages declares that a physician should be subservient to the priest (purohita), for it was Brahmā who expounded the eight-limbed āyurveda.<sup>301</sup> Another verse, from the same chapter, says that the position of a physician is comparable to that of the adhvaryu at a sacrifice.<sup>302</sup>

The nature of the text of the *Suśrutasaṃhitā* has, as we have seen, given rise to a series of hypotheses regarding its layers and their dates. The search for elements belonging to these layers has not led to generally accepted results. The disagreements are legion. It may therefore be useful to concentrate first on those features which appear to be late and are probably due to the activities of a reviser. The terminus ante quem for the current text might thus be determined as a first step to the elucidation of the chronological position of the earlier text available to the one who reworked it.

The hypothesis that the text of the *Suśrutasaṃhitā* as we know it is due to a reviser who also added the Uttaratantṛa is commonly accepted as a fact, but this does not relieve us of the obligation to examine the evidence.

The position of the Uttaratantṛa is a major issue to be taken into account. Some

of the introductory verses of this section are usually interpreted as proving it to be a later addition to a more original treatise ending with the Kalpasthāna. These verses refer to sources for the Uttaratāntra, among which are the śālākyatantra of king Videha and the six treatises on kāyachikitsā written by great sages.<sup>303</sup> This mention of sources is unique and means that the treatise of Videha<sup>304</sup> and the tradition about the treatises written by the six pupils of Ātreya Punarvasu were known to the author. The type of information given suggests indeed that the Uttaratāntra is an appendix not forming part of the original work. Cakrapāṇi and Ḍaḥaṇa however, who point to a pratisaṃskartar of the *Suśrutasaṃhitā* at the beginning of their commentaries, are silent on the question whether or not this person added the Uttaratāntra. The fact that the structure of the chapters of the Uttaratāntra is identical with that of the chapters of the preceding chapters cannot resolve the issue, for the same similarity is found in the chapters that Ḍṛḍhabala contributed to the *Carakasamhitā*.

The problem whether or not the Uttaratāntra is a later addition, along with the problem of its date, might be elucidated if it could be demonstrated that its author was acquainted with Ḍṛḍhabala's revised and completed version of the *Carakasamhitā*.

Some scholars claim, unfortunately without presenting evidence, that Ḍṛḍhabala's contributions to the *Carakasamhitā* are incorporated in the Uttaratāntra.<sup>305</sup> A comparison of some views expressed by Ḍṛḍhabala and the corresponding opinions found in the Uttaratāntra create doubt regarding the validity of this claim. Ḍṛḍhabala follows Karāla in distinguishing ninety-six eye diseases, whereas Nimi's number<sup>306</sup> of seventy-six is accepted in the Uttaratāntra. Ḍṛḍhabala accepts the four types of diseases of the ears, recognized by Caraka, while the Uttaratāntra acknowledges a number of twenty-eight. The number of *tanūrayuktis* described in the Uttaratāntra disagrees with Ḍṛḍhabala's number. Some more among the numerous differences concern the types of *yonivyāpad*, *trṣṇā*, *hikkā*, and other disorders.

These few examples may suffice to show that it is unjustified, without data based on a careful and detailed comparative study, to assert that the author of the Uttaratāntra made use of Ḍṛḍhabala's work.<sup>307</sup>

The evidence collected so far is slightly in favour of considering the Uttaratāntra as an addition to an earlier work. Its chronological position is difficult to determine. As we have seen, the date of Ḍṛḍhabala (A.D. 300–500) is not decisive in elucidating that of the Uttaratāntra. Other clues that might establish an upper limit are hardly available.<sup>308</sup> The lower limit presents difficulties as well and depends on the question whether or not the authors of *Aṣṭāṅgasamgraha* and *Aṣṭāṅghṛdayasaṃhitā* were acquainted with the Uttaratāntra and made use of it.<sup>309</sup> A.F.R. Hoernle's contention that the author of the *Nāvanīṭaka*, which forms part of the Bower MS, borrowed from the *Suśrutasaṃhitā*, its Uttaratāntra included, is not based on solid evidence.

The author who probably added the Uttaratāntra may have changed and expanded the text of the first five sections of the *Suśrutasaṃhitā*. The efforts at identifying these changes and additions have, in general, not led to results on which a consensus has been reached. Less liable to conflicting interpretations are the references to the Uttaratāntra in preceding sections.<sup>310</sup> Noteworthy too are some verses on *arīṣṭas* which mention diseases dealt with in the Uttaratāntra.<sup>311</sup>

The identity of the author who probably revised the *Suśrutasaṃhitā* and added the Uttaratāntra is unknown. Nevertheless, many scholars are convinced that his name was Nāgārjuna. The main lead on this point is a remark in Ḍaḷhaṇa's *Nibandhasaṃgraha*.<sup>312</sup> It is difficult to give credit to this tradition from a period in which Nāgārjuna had developed into a legendary figure to whom a large number of very diverse works were ascribed, the more so since Cakrapāṇi refrains from identifying the reviser.

S. Dasgupta<sup>313</sup> suggested that Ḍaḷhaṇa, by saying that the *pratisaṃskartar* was Nāgārjuna *eva*, may have meant, as indicated by the particle *eva*, that there have been other revisions; he added that the hopelessly muddled condition of the readings of the *Suśrutasaṃhitā* is such that there can be no doubt that from time to time many hands were in operation on the work. Gaṇanāthasena<sup>314</sup> came to the contrary conclusion and brought forward that the particle *eva* implies that Ḍaḷhaṇa did not acknowledge any other reviser than Nāgārjuna.

A remarkable, but unfortunately untrustworthy, piece of information, found in some editions of Ḍaḷhaṇa's commentary,<sup>315</sup> says that, at the time of the struggle against the Buddhists (more than a thousand years ago), the world-famous and excellent *rasāyana* expert, Siddhanāgārjuna, who was a protector of the Buddhists, revised the *Sauśrutatantra*, divided it into five sections, and added the Uttaratāntra; since that time, the work is called *Suśrutasaṃhitā*. This additional information is undoubtedly a later interpolation.<sup>316</sup>

The identification of the reviser as a Nāgārjuna may be bound up with quotations from Nāgārjuna and a treatise called *Nāgārjunīya*, found in Gayadāsa's commentary on the *Nidānasthāna* of the *Suśrutasaṃhitā*. This commentator cites (ad Su.Ni.3.12) an *ardhaśloka* of Nāgārjuna on the disorders called *śarkarā*, *sikatā* and *bhāsmameha*. This *ardhaśloka*, not regarded by Gayadāsa as forming part of Suśruta's text, was interpreted as unquestionably belonging to it by Ḍaḷhaṇa, who does not refer to Nāgārjuna as its source. This may mean that Gayadāsa's text is more original and contains less interpolations. The quotation, identical with Su.Ni.3.13ab of the current text, is the more interesting since it, according to Ḍaḷhaṇa, mentions a type of *mūtrāghāta* described in the Uttaratāntra (Su.U.58.20–21).<sup>317</sup> This state of affairs suggests that Gayadāsa was acquainted with a version of Suśruta's work associated with a Nāgārjuna, but did not accept the changes and additions of this Nāgārjuna as authoritative. Gayadāsa also quotes (ad Su.Ni.8.4) some stanzas about the types of *mūḍhagarbha* which are related to the prose description of the *Suśrutasaṃhitā*. These verses from a work called *Nāgārjunīya* indicate that a Nāgārjuna was associated with surgery. The opinions which Gayadāsa ascribes to him are rejected in the now current text of the *Suśrutasaṃhitā*, which makes it improbable that this Nāgārjuna was the reviser.

Noteworthy too are references to the *nāgārjunīyāḥ*, probably a school of interpreters of the *Suśrutasaṃhitā*, who adopted their own readings of the text.<sup>318</sup>

The relative chronological positions of the *Carakasamhitā* and *Suśrutasaṃhitā*

The period of composition of the first five sections of the *Suśrutasaṃhitā* is a disputed issue. Several views found in the secondary literature have already been discussed, as

well as Cakrapāṇi's remark that Dṛḍhabala made use of the *Suśrutasamhitā* in completing the *Carakasamhitā*, which, if correct, means that the first five sections of the *Suśrutasamhitā* are earlier than A.D. 300–500. The problem of the relative chronological positions of the *Carakasamhitā* before its revision and completion by Dṛḍhabala and the *Suśrutasamhitā* before its revision and the addition of the Uttaratantra has been discussed by a number of scholars.

F. Hessler claimed that Suśruta must be earlier than Caraka, because the latter mentions Dhanvantari. This thesis was brushed aside, too easily, by G. Liétard,<sup>319</sup> who interpreted the Dhanvantari of the *Carakasamhitā* as a mythical being, which is only justifiable for the reference to him as the god of healing (Ca.Vi.8.11). The Dhanvantari, mentioned in the Śārīrasthāna (6.21), is a different person, obviously a medical specialist, whose theory on embryonic development is accepted as authoritative. The same theory, declaring that all the parts of the embryo arise simultaneously, is expounded by Dhanvantari in the *Suśrutasamhitā* and acknowledged there as the final verdict on the issue (Su.Śā.3.32). This need not mean that the *Suśrutasamhitā* was known to Caraka, but shows that particular teachings were associated with Dhanvantari, and that a medical school recognizing him as their authority may already have been in existence.

The *Carakasamhitā* does not only mention a medical authority called Dhanvantari, but also the dhānvantariyāḥ, i.e., those belonging to the school of Dhanvantari. The two references to them are found in the chapter on the treatment of gulma, which derives from Caraka, not from Dṛḍhabala. The treatment of a ripe gulma is described as being part of the domain of the dhānvantariyāḥ, who are experienced in puncturing (vyadha), cleansing (śodhana), and wound-healing (ropaṇa) (Ca.Ci.5.44); they are also said to be experts in cauterization (dāha; Ca.Ci.5.63cd).<sup>320</sup> These passages point to the abilities of surgical specialists in general, without implying an acquaintance with the *Suśrutasamhitā*,<sup>321</sup> which is proved by the fact that Suśruta disagrees with Caraka and rejects the occurrence of ripening (pāka) in cases of gulma.<sup>322</sup> Cakrapāṇidatta<sup>323</sup> appears to agree that Caraka had a particular school of surgeons, accepting a *Dhanvantaritantra* as their textbook, in mind, or surgeons in general.<sup>324</sup> Some Indian scholars are, in spite of the evidence to the contrary, convinced that the dhānvantariyāḥ of the *Carakasamhitā* are surgeons adhering to the teachings of the *Suśrutasamhitā*.<sup>325</sup>

The arguments adduced in defending Suśruta's anteriority to Caraka are usually thought to be unconvincing. Most scholars regard Suśruta as later than Caraka.<sup>326</sup> The general impression that the *Suśrutasamhitā* is more systematic and scientific than the *Carakasamhitā* has led some to the conclusion that the former must be posterior to the latter.<sup>327</sup> Others advanced that the stanzas which the *Suśrutasamhitā* has in common with the *Carakasamhitā* prove that the latter preceded the former.<sup>328</sup> Although this argument is not conclusive in itself, because it can also be used in support of the opposite thesis, it is remarkable that the correspondences are mostly found in the Uttaratantra.<sup>329</sup>

The version of Sāṃkhya found in the *Suśrutasamhitā* is very often interpreted as later than the version of the *Carakasamhitā*, thus testifying to the posteriority of Suśruta.

An interesting detail, noticed by Atrideva,<sup>330</sup> may throw light on the relationship between *Caraka-* and *Suśrutasamhitā*. A passage occurring in the viśikhānupraveśanīya

chapter of the *Suśrutasaṃhitā* (Sū.10.4) rejects the view, said to be held by some, that the number of means to acquire knowledge about diseases is three, replacing this number by six. This may show familiarity with the doctrines of the *Carakasamhitā*, where indeed the three means referred to are described (Ca.Ci.25.22). Caution is, however, required, for it cannot be excluded that the *Carakasamhitā* shared the doctrine in question with other treatises belonging to the same school.

The *Hārītasamhitā* shows that, at least in the tradition to which this treatise belongs, Caraka was held to have preceded Suśruta. Hārīta's pariśiṣṭādhyaḥya describes Caraka as belonging to the Kṛtayuga, Suśruta to the Dvāparayuga.

### Suśruta outside India

The references to Suśruta known from outside India do not shed additional light on the chronological position of his *saṃhitā*.

Suśruta was known to the Khmer king Yaśovarman I (A.D. 889 to about 900);<sup>331</sup> one of his inscriptions compares the beneficial effects of the king's moral exhortations to those of Suśruta's medical treatments.<sup>332</sup>

The *Suśrutasaṃhitā* was rendered into Persian or Arabic by an Indian physician who is often called Manka,<sup>333</sup> who lived at the court during the reign of the 'Abbāsid caliph Hārūn al-Rašīd (A.D. 766–809). This translation was made at the request of the Barmakid Yahyā ibn Kḥālīd.<sup>334</sup>

Arabic authors referring to Suśruta or quoting him are:<sup>335</sup> 'Alī ibn Sahl al-Ṭabarī in his *Firdaws al-ḥikma*,<sup>336</sup> Ibn al-Nadīm in his *Fihrist al-'ulūm*,<sup>337</sup> Wādīh al-Ya'qūbī,<sup>338</sup> al-Rāzī in his *Kitāb al-ḥāwī*,<sup>339</sup> al-Bīrūnī in his *Kitāb al-ṣaydana fī'l-ṭibb*,<sup>340</sup> and Ibn Abī Uṣaybi'a.<sup>341</sup>

The *Suśrutasaṃhitā* was one of the sources of the *Ma'din al-Ṣhiḥā*.<sup>342</sup>

Suśruta is known as a medical authority in Tibetan literature, where his name is rendered as Legs-thos. He is the first one on a list of twenty-four great sages (maharṣi; Tibetan: drañ-sroñ chen-po) in the *Mahāvīyutpatti*.<sup>343</sup> The Tibetan translation of Śālihotra's *Aśvāyurveda* mentions him as the son and pupil of Śālihotra.<sup>344</sup>

### Other works attributed to Suśruta

Apart from the *Suśrutasaṃhitā*, a *Lohatantra* is ascribed to Suśruta. The only references to this treatise are found in Sureśvara's *Lohasarvasva*.

G. Hāldār<sup>345</sup> regarded the *Nāvanītaka(samhitā)*, which forms part of the Bower MS, as a work of Suśruta; he claimed that the preserved text represents a revision of the lost original by a Buddhist author.

### The materia medica of the *Suśrutasaṃhitā*

Names of plants and vegetable substances occurring in the *Suśrutasaṃhitā*,<sup>346</sup> but absent from the *Carakasamhitā*, are:<sup>347</sup> abda<sup>348</sup> (Ci.38.51; Ka.3.17; U.40.67; 52.14); abhra<sup>349</sup> (U.10.4); abja<sup>350</sup> (U.40.74; 50.23); ādārī<sup>351</sup> (U.44.19); agastya<sup>352</sup>



(Sū.46.281 and 282); agavṛttikā<sup>353</sup> (Ka.7.29); ahiṃsrā<sup>354</sup> (Sū.37.3; U.21.15; 45.33); ahipuṣpa<sup>355</sup> (Ci.17.28); ajalomī<sup>356</sup> (U.60.47); ajaruhā<sup>357</sup> (Ka.1.78); alasāndra<sup>358</sup> (Sū.46.35); alavaṇā<sup>359</sup> (Sū.38.16; Ci.17.34); amara<sup>360</sup> (Ci.37.11 and 23; 38.60, 61, 64, 68); amaraḍṛuma<sup>361</sup> (Ci.37.36; U.62.27); amarāhva<sup>362</sup> (U.52.14); amarakāṣṭha<sup>363</sup> (U.11.8); amaravarāyudhasāhvaya<sup>364</sup> (Ci.17.41); āmaya<sup>365</sup> (U.39.256); ambhoda<sup>366</sup> (Ci.38.44; U.39.222 and 224; 40.66; 41.50); ambhodhara<sup>367</sup> (U.52.31); ambhoja<sup>368</sup> (Sū.6.27); ambhoruha<sup>369</sup> (U.26.14); āmiṣa<sup>370</sup> (Ci.37.15; U.51.50); amṛtādvaya<sup>371</sup> (Ci.37.20); añjanakī<sup>372</sup> (Ci.18.34); antrapācaka<sup>373</sup> (Ka.2.5); aṇu<sup>374</sup> (U.19.13); a-pehivātā<sup>375</sup> (Ci.18.4); āraṇyamāṣa<sup>376</sup> (Sū.46.36); ārevata<sup>377</sup> (Sū.38.64; Ci.5.8; 9.10; 10.12; 20.51; U.12.42; 55.47); arkapaṇī<sup>378</sup> (Ka.8.106); arkapuṣpi<sup>379</sup> (Sū.46.262; Śā.10.69); ārtagala<sup>380</sup> (Sū.38.10; 39.7; Ci.7.6; U.9.19; 17.51; 53.11); asanapuṣpaka<sup>381</sup> (Sū.46.8); asitamuṣkaka<sup>382</sup> (Sū.11.11); asitasārivā<sup>383</sup> (U.12.48); asitasarṣapa<sup>384</sup> (Sū.46.50); aśuklacandana<sup>385</sup> (U.50.18); aśvabalā<sup>386</sup> (Sū.46.256 and 261; Ci.1.113; 6.8); aśvahantrī<sup>387</sup> (Ci.9.28); aśvamūtrī<sup>388</sup> (U.42.94); atimukta(ka)<sup>389</sup> (Sū.45.120; Ci.31.5; U.45.16; 60.35); atiyava<sup>390</sup> (Sū.46.43); avaguttha<sup>391</sup> (Sū.46.221); bahupattra<sup>392</sup> (U.21.9); bahuputrā<sup>393</sup> (Ka.1.68); bākucī<sup>394</sup> (Ci.9.32; 25.18); bāṇa<sup>395</sup> (Sū.6.36); bandhūka<sup>396</sup> (Sū.6.36; Ka.1.72); barhiṣṭha<sup>397</sup> (Ci.18.21; U.11.6 and 8; 39.230; 62.23 and 27); bāṣpadvaya<sup>398</sup> (Ci.4.32); bhadra<sup>399</sup> (Ci.38.60); bhadrakāṣṭha<sup>400</sup> (Ka.7.23; U.21.22); bhadrarohiṇī<sup>401</sup> (U.40.105); bhallūka<sup>402</sup> (Sū.38.12; Ci.7.6 and 10); bhā-  
ṇā<sup>403</sup> (Ci.31.5); bhilloṭa(ka)<sup>404</sup> (Ci.24.15; U.17.40); bhīruka<sup>405</sup> (Sū.45.149 and 151); bhr̥ṅgavṛkṣa<sup>406</sup> (U.35.4); bhujaṅgapuṣpa<sup>407</sup> (U.46.17; 47.32 and 38); bhūmika-  
damba<sup>408</sup> (Ci.2.90); bhūtakeśī<sup>409</sup> (U.60.47); bimbilōṭa<sup>410</sup> (U.12.11); bimbīṭikā<sup>411</sup> (Sū.46.249); brahmacāriṇī<sup>412</sup> (Sū.19.29); cakramarda<sup>413</sup> (Ci.9.12 and 13); campaka<sup>414</sup> (Sū.28.11; 45.12; 46.288; Ci.29.236; Ka.6.20); carmarī<sup>415</sup> (Ka.2.5); carmavṛkṣa<sup>416</sup> (Ci.11.10); chagalāntrī<sup>417</sup> (Sū.38.29; 39.4; 46.249); citraphalā<sup>418</sup> (U.32.8; 58.66); coca<sup>419</sup> (Sū.38.24; Ci.17.15; Ka.6.3); corakapattra<sup>420</sup> (Sū.38.48); cūta<sup>421</sup> (Sū.6.27; Ci.9.23; 25.32 and 43); dadhināman<sup>422</sup> (U.50.27); dala<sup>423</sup> (Ka.3.17); dāsikuruṇṭa-  
ka<sup>424</sup> (Sū.38.6); devadālī<sup>425</sup> (Sū.39.5; Ka.7.35 and 36); devakāṣṭha<sup>426</sup> (U.18.100; 26.22; 52.15); dhattūra<sup>427</sup> (Ci.17.37; Ka.7.52 and 53); dīrghamūlā<sup>428</sup> (Sū.38.45); dīrghapattra<sup>429</sup> (Sū.45.150 and 154); dīrghavṛṇṭa<sup>430</sup> (Ci.1.107; U.40.70, 81, 87); drāviḍī<sup>431</sup> (Sū.38.54); duḍuraka<sup>432</sup> (Sū.46.274); dūṣaka<sup>433</sup> (Sū.46.4); gajādināmā<sup>434</sup> (Ci.18.45); gajāśanā<sup>435</sup> (U.40.155); galōḍya<sup>436</sup> (Ci.5.8); gandhāhva<sup>437</sup> (Ci.9.60); gandharvahasta(ka)<sup>438</sup> (Ci.4.30; 33.7; 38.67; U.35.3); gāṇgeya<sup>439</sup> (U.17.17; 39.109); gargaraka<sup>440</sup> (Ka.2.5); gāyatrī<sup>441</sup> (U.41.50; 45.34; 52.19); ghoṇṭā<sup>442</sup> (Ci.17.34); gilōḍya<sup>443</sup> (Sū.42.11; Ci.11.10); giriḥvā<sup>444</sup> (Ci.18.34; Ka.5.75); girikadambaka<sup>445</sup> (U.31.4; 32.6); giryāhva<sup>446</sup> (Ka.2.45); gocandana<sup>447</sup> (Ci.28.22); gojī<sup>448</sup> (Sū.8.15 and 18; Ci.9.10; 18.5, 32, 33; 19.44; 22.19; Ka.6.3; 7.29; U.24.28); gopā<sup>449</sup> (Ka.1.37); gopaghoṇṭā<sup>450</sup> (Sū.38.6; Ci.11.10; Ka.6.3); gr̥dhranakhī<sup>451</sup> (Sū.38.73); guḍaśarka-  
ra<sup>452</sup> (U.42.70); guptaphalā<sup>453</sup> (U.46.23); harigandhā<sup>454</sup> (U.35.4); harimantha<sup>455</sup> (Sū.46.277); harivṛkṣa<sup>456</sup> (Ci.11.10); hastikarṇa<sup>457</sup> (Sū.39.9; 45.115); hastyāluṅka<sup>458</sup> (Sū.46.298); haṭha<sup>459</sup> (Sū.45.11; Ci.11.9; 29.29); hemāṅga<sup>460</sup> (Ci.25.39); hima<sup>461</sup> (U.42.71); hiranyapuṣpi<sup>462</sup> (Śā.10.11); hrasvaśigruka<sup>463</sup> (U.26.28); hutabhuj<sup>464</sup> (U.42.29; 52.30); hutāśa(na)<sup>465</sup> (Ci.37.8; U.41.47; 61.32); ibha<sup>466</sup> (Ci.38.52); ibhagandhā<sup>467</sup> (Ka.2.5); ibhakanā<sup>468</sup> (U.52.42); ibhakṛṣṇā<sup>469</sup> (U.52.38); indīvara<sup>470</sup> (Sū.38.12;

46.298; Śā.4.72; Ci.7.11 and 17; U.45.35); indraparnī<sup>471</sup> (Ci.17.15); indrapuṣpī<sup>472</sup> (Ci.17.15); indrasurā<sup>473</sup> (Ci.37.34; U.11.15); indravallī<sup>474</sup> (U.28.7); indravṛkṣa<sup>475</sup> (Sū.11.11; U.57.9; 61.34); jālakṣīrī<sup>476</sup> (Ka.2.5); jalaśūka<sup>477</sup> (Sū.16.19); jālinī<sup>478</sup> (Ci.2.91; Ka.7.15 and 34); jaṭā<sup>479</sup> (Ka.6.15; 7.23; U.60.47; 62.30); jātukanda<sup>480</sup> (Sū.37.16 and 21); jatumukha<sup>481</sup> (Sū.46.12); jyotiṣka<sup>482</sup> (Ci.9.10; 14.10); kaccaka<sup>483</sup> (Ci.7.6); kādamba<sup>484</sup> (Ka.2.5); kadambapuṣpī<sup>485</sup> (Ci.19.63; U.44.19); kahlāra<sup>486</sup> (Sū.39.8; U.26.13; 47.57); kākadāni<sup>487</sup> (Sū.39.9; Ci.14.8; 18.13 and 36; 19.63; Ka.7.31; U.28.6; 32.8; 34.7; 44.19; 51.24); kākajaṅghā<sup>488</sup> (Ci.19.63); kākalaka<sup>489</sup> (Sū.46.8); kālāguru<sup>490</sup> (Ci.39.275); kālaka<sup>491</sup> (Sū.20.5); kālaskandha<sup>492</sup> (Sū.38.8); kalāyavallī<sup>493</sup> (Ci.6.8); kālīkā<sup>494</sup> (U.51.23); kālinda(ka)<sup>495</sup> (Sū.9.4; 46.211 and 214); kāmbojī<sup>496</sup> (Ci.19.42); kāṇa<sup>497</sup> (U.60.47); kanakāhva<sup>498</sup> (Sū.44.49); kāñcanaka<sup>499</sup> (Sū.39.7; 46.4); kandalī<sup>500</sup> (Sū.39.8); kaṅkuṣṭha<sup>501</sup> (Sū.28.13); kaṇṭakī<sup>502</sup> (Sū.38.6); kāntāra<sup>503</sup> (Sū.45.149 and 153); kapotavaṅkā<sup>504</sup> (Sū.38.12; Ci.7.6 and 25; 31.5; U.32.3); kara-ghāṭa<sup>505</sup> (Ka.2.5); karambha<sup>506</sup> (Ka.2.5); karañjika<sup>507</sup> (Ci.2.74 and 91; 9.10; Ka.6.3); kāravella(ka)<sup>508</sup> (Sū.19.33; 42.11; 46.269; Ci.5.12; U.17.51); kāravī<sup>509</sup> (Sū.46.230); kardamaka<sup>510</sup> (Sū.20.5; 46.4; Ka.2.5); karkoṭaka<sup>511</sup> (Ka.2.5); kārpāsini<sup>512</sup> (U.47.34); kartariya<sup>513</sup> (Ka.2.5); kāsthāluṅka<sup>514</sup> (Sū.46.298); kaṭukikā<sup>515</sup> (Sū.46.262); kaṭvī<sup>516</sup> (Sū.44.26; Ci.37.37; Ka.7.39); kavaka<sup>517</sup> (Sū.20.8); kedāra<sup>518</sup> (Sū.46.8); kenduka<sup>519</sup> (U.21.15); ketakī<sup>520</sup> (Sū.6.32; U.42.45); khadyotaka<sup>521</sup> (Ka.2.5); kharamañjarī<sup>522</sup> (Ci.18.23; 25.14; 31.5; U.12.50; 19.11); kiṭṭārī<sup>523</sup> (Ci.2.91); kiṭṭaśatru<sup>524</sup> (U.12.44); kokilākṣaka<sup>525</sup> (U.58.44); kolā<sup>526</sup> (U.51.33); kośakāra<sup>527</sup> (Sū.45.155; U.40.126); kośakṛt<sup>528</sup> (Sū.45.150); kośavatī<sup>529</sup> (Ci.18.20; Ka.7.34; U.56.17); kṛmighāṭinī<sup>530</sup> (U.42.42); kṛmighna<sup>531</sup> (Ci.9.59; U.10.8; 21.52; 26.29; 40.40; 52.29); kṛmīśatru<sup>532</sup> (U.31.36); kṣaṇadā<sup>533</sup> (U.17.17); kṣīradruma<sup>534</sup> (U.18.36); kṣīramorata<sup>535</sup> (Sū.42.11; Ka.8.132); kṣīrapalāṇḍu<sup>536</sup> (Sū.46.247); kṣīravṛkṣa<sup>537</sup> (Sū.46.163, 165, 253; Śā.10.13; Ci.1.17 and 114; 7.33, 34, 35; 20.16; 24.15; 38.80; U.21.30; 23.6; 29.4); kṣīrin<sup>538</sup> (Sū.37.23; Śā.10.61; Ci.2.65 and 83; 19.43; 20.34; 22.15 and 17; Ka.5.60; 8.133; U.39.181; 40.104; 47.41); kuberākṣī<sup>539</sup> (Sū.39.7; U.35.3); kubjaka<sup>540</sup> (Ci.7.6; U.17.8); kukkuṭā<sup>541</sup> (U.60.47); kukkuṭāṇḍaka<sup>542</sup> (Sū.46.12); kukkuṭī<sup>543</sup> (U.29.7; 33.7); kulāhala<sup>544</sup> (Sū.38.18; 46.221); kulatthikā<sup>545</sup> (Ci.16.26; 20.50); kulevara<sup>546</sup> (Sū.46.290); kulīra<sup>547</sup> (U.21.45); kumudaghñī<sup>548</sup> (Ka.2.5); kumudvatī<sup>549</sup> (Ka.2.5); kunda<sup>550</sup> (U.7.30; 51.38; 60.35); kuntalīkā<sup>551</sup> (Sū.46.274 and 276); kurabaka<sup>552</sup> (Ka.5.86); kuravaka<sup>553</sup> (Sū.46.8); kuruṇṭikā<sup>554</sup> (Sū.38.12; 46.274 and 276; Ci.7.10); kuruvaka<sup>555</sup> (Sū.42.11); kuśimbivallī<sup>556</sup> (Sū.46.46); kuvalaya<sup>557</sup> (Sū.13.14; 38.52; 46.285); lakṣmī<sup>558</sup> (Sū.19.29); lambā<sup>559</sup> (Ka.2.5); lāṅguli<sup>560</sup> (Sū.19.29); lataḥkastūrikā<sup>561</sup> (Sū.46.204); lāvākṣaka<sup>562</sup> (Sū.46.12); lohītikā<sup>563</sup> (Ci.11.10); madhvāluṅka<sup>564</sup> (Sū.46.298); magadhā<sup>565</sup> (U.17.25; 26.7; 40.181; 41.49; 47.30 and 38; 52.34; 56.17); magadhājā (U.17.23); magadhodbhavā (U.11.14; 52.44; 56.18); mahādūṣaka<sup>566</sup> (Sū.46.4); mahākarambha<sup>567</sup> (Ka.2.5); mahāmāṣa<sup>568</sup> (Sū.21.23); mahānimba<sup>569</sup> (Sū.38.22); mahāṣaṣṭika<sup>570</sup> (Sū.46.8); mahāsugandhā<sup>571</sup> (U.26.40); mahāśūka<sup>572</sup> (Sū.46.4); mahāśyāmā<sup>573</sup> (Sū.38.29); mahāviṣa<sup>574</sup> (Ka.2.5 and 17); mahīkadamba<sup>575</sup> (Ci.17.15; U.41.47); mahīṣaśūka<sup>576</sup> (Sū.46.4); malayaṇḍī<sup>577</sup> (U.47.55); mallīkā<sup>578</sup> (Sū.46.286); mānaka<sup>579</sup> (Sū.46.306); mandārī<sup>580</sup> (Ci.19.63); maṇḍūkī<sup>581</sup> (U.57.11); maṅgalya<sup>582</sup> (Sū.20.5; 46.27); mātulūṅgī<sup>583</sup> (Sū.37.3; 39.6; U.45.36; 56.18);

meṣa<sup>584</sup> (U.17.45); meṣaviṣṇāṇāman<sup>585</sup> (U.17.31); miṣi<sup>586</sup> (Ci.38.44, 53, 57, 69, 72); mocakī<sup>587</sup> (Ci.2.64); modayanti<sup>588</sup> (Ci.25.33); mohanavallikā<sup>589</sup> (U.60.48); mohanikā<sup>590</sup> (Ci.28.22); mokṣaka<sup>591</sup> (Ci.4.32; Ka.3.9; U.44.29); mṛgabhojinī<sup>592</sup> (Ci.17.37); mṛgādānī<sup>593</sup> (Ci.2.91; 9.58; Ka.5.69; U.28.7); mṛgairvāru<sup>594</sup> (Sū.39.3; U.30.6); muculunda<sup>595</sup> (Ci.18.10); mūlaka<sup>596</sup> (Ka.2.5); muñja<sup>597</sup> (Śā.5.49); muraṅgi<sup>598</sup> (Sū.39.6; Ci.23.12; Ka.5.68; U.21.17); muruṅgi<sup>599</sup> (Ci.6.9; 14.10); mūṣikā<sup>600</sup> (Ka.1.78); nādeyi<sup>601</sup> (Ci.4.32); nadībhallātaka<sup>602</sup> (Sū.46.249); nāga<sup>603</sup> (Sū.45.12; 46.287; Ci.25.38; U.47.61); nāgavinnā<sup>604</sup> (U.62.31); nagavṛttika<sup>605</sup> (Ci.20.12); naga-vṛttikā<sup>606</sup> (Ci.15.9; Ka.5.76); naipāla<sup>607</sup> (Sū.45.150 and 154); nandana<sup>608</sup> (Ka.2.5); nandīvrkṣa<sup>609</sup> (Sū.38.46 and 48); nārācaka<sup>610</sup> (Ka.2.5); narādhipa<sup>611</sup> (Ci.37.11 and 41); nāraṅga<sup>612</sup> (Sū.46.139 and 161); narendra(druma)<sup>613</sup> (Ci.9.40; 18.6; Ka.5.61); nīlapora<sup>614</sup> (Sū.45.150 and 154); nīraja<sup>615</sup> (Ci.25.33); nirdahanī<sup>616</sup> (Ci.4.32; U.40.39; 55.48; 57.10); niśācchada<sup>617</sup> (Ci.38.43 and 67); nīcaihkadamba<sup>618</sup> (U.51.40); nṛpavrkṣa<sup>619</sup> (U.42.61; 57.9); nṛtakaundaka<sup>620</sup> (U.51.34); pārāvataka<sup>621</sup> (Sū.46.12); pāribhadra(ka)<sup>622</sup> (Sū.11.11; 29.64; Ci.4.32; Ka.3.9; 6.3; U.32.3; 54.26; 58.48); pārijāta<sup>623</sup> (Ci.11.9; 14.13); pārtha<sup>624</sup> (Ka.6.22); paṭolī<sup>625</sup> (U.39.226); paṇḍaraka<sup>626</sup> (Sū.45.149 and 151; Ci.26.17); picu<sup>627</sup> (Sū.46.187); picuka<sup>628</sup> (Ci.7.17); pippala<sup>629</sup> (Ka.8.110 and 120); pītaka<sup>630</sup> (Sū.20.5; 46.8); pracībala<sup>631</sup> (U.34.3); prācībala<sup>632</sup> (Sū.38.18); prapūṇḍarika<sup>633</sup> (Ka.2.5); puṇḍarika<sup>634</sup> (Sū.46.4); punnāga<sup>635</sup> (Sū.6.23; 38.24 and 45; Ka.2.47; 5.66; 6.16; U.47.61); puṣkaravartī<sup>636</sup> (Sū.46.163); puṣpāṇḍa-ka<sup>637</sup> (Sū.46.4); puṣpaphala<sup>638</sup> (Sū.9.4; 46.211; U.47.45); putrañjīvaka<sup>639</sup> (Ci.19.61; U.31.8); putraśreṇī<sup>640</sup> (Sū.38.29; Ka.6.3); rājadruma<sup>641</sup> (Ka.3.9; U.57.8); rājataru<sup>642</sup> (U.57.14); rājīkā<sup>643</sup> (Sū.46.221); raktā<sup>644</sup> (Ci.37.31; 38.71; Ka.5.61 and 68; U.52.35); raktāluka<sup>645</sup> (Sū.46.298); raktasāra<sup>646</sup> (Ci.9.50); raktasārṣapa<sup>647</sup> (U.3.11); raktavrkṣa<sup>648</sup> (Sū.46.284); raktotpala<sup>649</sup> (Sū.38.52); rāmatha<sup>650</sup> (U.51.16); rambhā<sup>651</sup> (Ci.1.108); ramyaka<sup>652</sup> (Sū.38.29; 39.4; 43.3; Ci.4.27); rātri<sup>653</sup> (Ci.9.12; U.10.5); reṇu<sup>654</sup> (Ci.37.17 and 40; 38.51 and 57); reṇuka<sup>655</sup> (Ka.2.5); reṇukā<sup>656</sup> (U.17.16); ruḥ<sup>657</sup> (U.40.57; 42.29); rūpikā<sup>658</sup> (Sū.43.3; Ci.9.5; 17.25; Ka.7.52); rodhrapuṣpaka<sup>659</sup> (Sū.46.4); sadābhadrā<sup>660</sup> (U.24.32); śailabheda<sup>661</sup> (U.10.4); śāka<sup>662</sup> (Sū.8.15 and 18; 38.43; 42.11; Śā.10.59; Ci.7.6 and 17; 9.10; 15.22; 18.32; Ka.6.3); śākhotaka<sup>663</sup> (Ci.18.23); śakrāhva<sup>664</sup> (Ci.37.27); śakrayava<sup>665</sup> (Ci.38.27; U.39.227; 40.66 and 104); śālāmukha<sup>666</sup> (Sū.46.12); śāṅkhāluka<sup>667</sup> (Sū.46.298); śāntanu<sup>668</sup> (Sū.46.21 and 23); saptāhva<sup>669</sup> (Sū.6.36; Ci.9.50); sārāpāka<sup>670</sup> (Ka.2.5); śarapūṅkhā<sup>671</sup> (Ka.7.53); sarpagandhā<sup>672</sup> (Ka.5.84; 7.29; U.60.47); sarpaghātinī<sup>673</sup> (Ka.2.5); sarpākṣī<sup>674</sup> (Ka.6.22; 8.117); sarṣapa<sup>675</sup> (Ka.2.5); śataparvaka<sup>676</sup> (U.58.44); saurabhātija<sup>677</sup> (U.23.4); saurīyaka<sup>678</sup> (Ka.2.5); sauvīra<sup>679</sup> (Sū.46.139 and 146); śephalikā<sup>680</sup> (Sū.8.15 and 18); siddhaka<sup>681</sup> (Ka.3.9); śimha<sup>682</sup> (Ci.9.27); śimhī<sup>683</sup> (U.39.219); sinduka<sup>684</sup> (U.31.7); śīrṇavṛnta<sup>685</sup> (Sū.46.216 and 220); śītabhīruka<sup>686</sup> (Sū.46.4); sitakarnīka<sup>687</sup> (U.45.20); śītaphala<sup>688</sup> (Sū.46.163); sitasāriva<sup>689</sup> (U.47.41); sitasindhuvāra<sup>690</sup> (Ka.5.66 and 77); śītaśīva<sup>691</sup> (Sū.14.35; 39.9; 42.11; Ci.11.10; 17.15; Ka.6.18); śivātī<sup>692</sup> (U.23.4); somā<sup>693</sup> (Ka.1.37); somavrkṣa<sup>694</sup> (Ci.11.8); śṛgālavinnā<sup>695</sup> (Ci.5.7; U.42.113; 58.59); śrī<sup>696</sup> (Ci.22.69; U.24.27); śrīniketa<sup>697</sup> (Ci.9.12); sthūlakanda<sup>698</sup> (Sū.46.306 and 307); sūcīpattra(ka)<sup>699</sup> (Sū.45.149 and 154); sugandha<sup>700</sup> (Ka.2.5); sugandhaka<sup>701</sup> (Sū.20.5; 38.18; 46.4 and 221); sugandhā<sup>702</sup> (Ka.5.76); sugandhikā<sup>703</sup> (Ci.17.8 and 28;

Ka.5.69; 6.15); śukāhvayā<sup>704</sup> (Ci.18.48); śukākhyā<sup>705</sup> (Ci.18.36; 19.65); śukākhyā<sup>706</sup> (Ci.2.90; Ka.7.34; U.44.19; 51.23); śukanasā<sup>707</sup> (Ci.17.37; 19.63); śukanāsā<sup>708</sup> (Sū.42.11; Ci.1.115); śuklamarica<sup>709</sup> (U.11.13 and 16; 12.51); surā<sup>710</sup> (U.62.30); suradruma<sup>711</sup> (Ci.37.16; U.61.31); surakāṣṭha<sup>712</sup> (U.11.6); sūraṇa<sup>713</sup> (Sū.46.306 and 307); surasī<sup>714</sup> (Sū.38.18; Ka.5.70); surendrakanda<sup>715</sup> (Sū.46.305); sūryavallī<sup>716</sup> (Sū.45.120; Ci.31.5; Ka.2.45); śvetacandana<sup>717</sup> (Ci.25.39); śvetadūrvā<sup>718</sup> (Śā.10.69); śvetakarkatāka<sup>719</sup> (U.58.42); śvetamokṣaka<sup>720</sup> (Ci.4.32); śvetapora(ka)<sup>721</sup> (Sū.45.149 and 152); śvetapunarnavā<sup>722</sup> (Ka.7.24 and 52); śvetasarṣapa<sup>723</sup> (Ci.5.10; 22.20); śvetasurasā<sup>724</sup> (Sū.38.18); śvetāvalguja<sup>725</sup> (Ci.28.3); talakota<sup>726</sup> (U.51.45); tālapattri<sup>727</sup> (Sū.11.3; 37.30; Ci.18.5; 25.18); tālītala<sup>728</sup> (Ci.17.25); tāmraavallī<sup>729</sup> (Śā.10.59); tāpasavr̥kṣa<sup>730</sup> (Sū.38.16; Ci.18.13); tāpasekṣu<sup>731</sup> (Sū.45.149 and 153); taskara<sup>732</sup> (Ci.37.17); tīkṣṇagandhā<sup>733</sup> (U.23.4); tiktālābhu<sup>734</sup> (Sū.46.215); timira<sup>735</sup> (U.51.32); toya<sup>736</sup> (Ka.2.51; 6.16; 8.114); tripuṭaka<sup>737</sup> (Sū.46.27); trivarga<sup>738</sup> (Ci.2.73; 24.7; U.41.45); trivarnaka<sup>739</sup> (Sū.44.7); tuṇḍikera<sup>740</sup> (U.48.27); tuṇḍikeri<sup>741</sup> (Ni.2.10; 16.42); turāṅgagandhā<sup>742</sup> (U.41.41 and 43); tuvara(ka)<sup>743</sup> (Sū.45.122; 46.196 and 423; Ci.9.7; 13.20; 31.5; U.16.8); tvaksāra<sup>744</sup> (Sū.8.15); tvaritaka<sup>745</sup> (Sū.46.12); udumbarī bhadrāsāṅgī<sup>746</sup> (Ci.9.15); ugrā<sup>747</sup> (Ci.25.38; 38.45; U.23.4; 41.50; 51.27; 61.36); undurukarṇikā<sup>748</sup> (Sū.38.18); unmatta(ka)<sup>749</sup> (Ka.7.54; U.21.6); utpalasārivā<sup>750</sup> (Śā.10.60); uttamāraṇī<sup>751</sup> (Ci.6.12; 10.8); vahnī<sup>752</sup> (Ci.9.47; U.52.35); vajjayanti<sup>753</sup> (Sū.42.11; Ci.4.32; 11.9; 19.39); vairātaka<sup>754</sup> (Ka.2.5 and 14); vājigandhā<sup>755</sup> (Ci.37.12 and 20; 38.43; U.41.42; 62.27); vajraproktā<sup>756</sup> (U.60.48); vajrākhyā<sup>757</sup> (Ci.9.55); vajravrkṣa<sup>758</sup> (Sū.38.20); vakra<sup>759</sup> (Ka.5.63; 6.3; 7.29; 8.47, 48, 54, 104, 117; U.9.13; 18.94 and 98); vanamudga<sup>760</sup> (Sū.20.5; 46.27 and 29); vandāka<sup>761</sup> (Ci.6.13); vanyakulattha<sup>762</sup> (Sū.46.38); varadāru<sup>763</sup> (Ka.2.5); varāḥakanda<sup>764</sup> (Sū.46.309); vārāḥī<sup>765</sup> (Ci.7.10; 17.4 and 36; 27.11; 30.5 and 13); varavāstuka<sup>766</sup> (U.17.50); vārīda<sup>767</sup> (Ci.38.71); varṇaka<sup>768</sup> (U.10.10; 35.7); vātaghna<sup>769</sup> (Ci.16.4); veganāman<sup>770</sup> (Sū.46.238); veṇukā<sup>771</sup> (Ka.2.5); veṇupatirikā<sup>772</sup> (Ka.1.53); vidyucchikā<sup>773</sup> (Ka.2.5); vijaya<sup>774</sup> (Ka.2.5); vinirahani<sup>775</sup> (U.44.28); vīratara<sup>776</sup> (Sū.38.12; 39.7; Śā.10.22; Ci.7.26; 15.44; U.9.20; 40.41); viṣaghnī<sup>777</sup> (U.62.30); viśalyā<sup>778</sup> (Śā.10.11; Ci.18.48; Ka.5.61; U.55.49; 62.30); viṣamuṣṭika<sup>779</sup> (Sū.38.18); viṣapatrikā<sup>780</sup> (Ka.2.5); vṛddhi<sup>781</sup> (Sū.38.35; Ci.37.12; 38.28); vyādhigāta<sup>782</sup> (Ci.9.14); yavaphala<sup>783</sup> (U.31.6); yavaphalā<sup>784</sup> (Ka.6.15); yojanavallī<sup>785</sup> (U.38.45).

The inorganic substances of the *Suśrutasamhitā*<sup>786</sup> are collectively referred to as pā-rthiva substances;<sup>787</sup> the items listed as such consist of gold (suvarṇa), silver (rajata), gems (maṇi), pearls (muktā), manāḥśilā, clay (mṛd), potsherds (kapāla), etc.<sup>788</sup>

Apart from salts,<sup>789</sup> caustics (kṣāra)<sup>790</sup> and some types of añjana,<sup>791</sup> the *Suśrutasamhitā* mentions:<sup>792</sup> āgārādhūma<sup>793</sup> (Sū.14.35; Ci.9.10); āla<sup>794</sup> (Ci.1.107 and 108; 9.27 and 55; 19.18; 20.21; 25.38; U.11.9; 52.22); ananta<sup>795</sup> (Śā.10.13); aśma jājatu<sup>796</sup> (U.41.57); aśmajājatu<sup>797</sup> (U.46.24); aśmantaka<sup>798</sup> (U.15.26); aśmasāra<sup>799</sup> (U.59.24); audumbara<sup>800</sup> (U.18.63 and 85); ayas (iron) and ayorajas (powdered iron) (Sū.9.19; 11.11; 16.18; Ci.10.11 and 12; 13.7; 19.47; 25.28; 35.12; 44.17 and 21; U.15.26; 17.85; 18.62; 44.17); ayaskānta<sup>801</sup> (Sū.7.15; 27.1); ayomala<sup>802</sup> (U.44.24 and 32); bhasmaśārkarā<sup>803</sup> (Sū.11.11); dhātumākṣīka<sup>804</sup> (Ci.9.6); gairika<sup>805</sup> (Sū.14.36; Ci.19.30 and 40;

Ka.6.16; U.9.15; 10.8; 17.6, 87; 45.39); giriḥ<sup>806</sup> (Ci.13.12); gomedaka<sup>807</sup> (Ni.3.7); gr-hadhūma<sup>808</sup> (Ci.9.60; 18.41); haritālā<sup>809</sup> (Sū.37.14 and 18; Ci.1.60, 97, 105; 6.12; 9.10; 19.40 and 46; U.30.7); heman (gold) (Śā.10.13 and 68); iṣṭakā<sup>810</sup> (Ci.32.5); kāca (glass) (Sū.8.15; 46.453); kajjala (U.12.53); kāmśya (Sū.46.328; Ci.18.36; 32.4; U.18.61 and 103); kāmśyamala (U.12.14, 41, 50); kanaka (gold) (Sū.26.20; Śā.10.68); kanakagairika<sup>811</sup> (Ka.2.51); kanakākārodbhava<sup>812</sup> (U.17.39); kāñcana (gold) (Śā.10.68); kāñcanagairika<sup>813</sup> (Ka.5.67; U.44.21); kāñcanāhvagairika<sup>814</sup> (U.50.19); kapāla<sup>815</sup> (Sū.16.15; Ci.32.4 and 5; U.18.96); kardama<sup>816</sup> (Ci.25.32); kāsīsa<sup>817</sup> (Sū.37.14, 19, 31; 38.37; Ci.1.60, 96, 97, 103; 9.10 and 55; 18.54; 19.40; U.12.18 and 24; 14.4; 17.44; 18.25; 25.32; 50.27); kaṭasarkarā<sup>818</sup> (Sū.11.12); kṛṣṇakapālikā<sup>819</sup> (Ni.5.8); kṛṣṇaloha<sup>820</sup> (Sū.38.62; U.18.24); kṛṣṇāyas<sup>821</sup> (Sū.46.499; Ci.12.10 and 11; 25.31); kuruvinda<sup>822</sup> (Sū.8.15; 37.31; Ka.3.14; U.15.26); loha<sup>823</sup> (Sū.7.7; 9.8; 12.4; 18.16; 46.328; Ci.1.90; 6.11; 9.25; 13.5, 6, 7; 32.5; 35.12); lohacūrṇa<sup>824</sup> (Ci.9.25; U.12.24); lohakiṭṭa<sup>825</sup> (U.44.32 and 34); lohamala<sup>826</sup> (Sū.38.62); lohapuṛiṣa<sup>827</sup> (Ci.18.52); loharajas<sup>828</sup> (Sū.15.32; Ci.25.33); mākṣika<sup>829</sup> (Ci.13.17 and 18); manahṣilā<sup>830</sup> (Sū.1.32; 37.14, 18, 31; Ci.1.60 and 97; 9.10 and 55; 19.40 and 46; U.11.8 and 9; 18.100; 17.7, 18, 27, 39, 98; 30.7; 18.100; 52.22); maṇḍūra<sup>831</sup> (U.44.23); maṇi<sup>832</sup> (Sū.1.32; 45.17; 46.330; Ci.1.100; 35.12; 39.235); manohvā<sup>833</sup> (U.13.7); mṛd (U.44.3; 45.33; Ka.3.12); muktā (Sū.1.32; 45.17; 46.329; U.15.26; 44.21); nadīja<sup>834</sup> (Ci.9.25); nadījadhātu<sup>835</sup> (U.44.31); naipāla<sup>836</sup> (U.50.18); naipālī<sup>837</sup> (U.12.16); nepālajā<sup>838</sup> (U.19.14); nepālajāta<sup>839</sup> (U.11.16); nepālī<sup>840</sup> (U.12.16; 14.4); pāṣāṇa<sup>841</sup> (Ci.32.5); pārada (Ci.25.39; <sup>842</sup>U.35.7); <sup>843</sup>pravāla (coral)<sup>844</sup> (U.44.21); pulaka<sup>845</sup> (U.15.26); puṣpa<sup>846</sup> (Ka.6.17); rajata (silver)<sup>847</sup> (Sū.1.32; 26.20; 38.62; 46.449 and 451; Ci.35.12; U.10.15; 18.85); ratna<sup>848</sup> (U.12.25; 18.94); rīti (yellow brass) (Sū.26.20; Ci.35.12); rūpya<sup>849</sup> (Sū.46.327); śaila jaṭu<sup>850</sup> (U.44.31); śātakumbha<sup>851</sup> (U.10.9 and 15; 17.85; 18.85 and 92); śilā<sup>852</sup> (Ci.2.60; 25.38; Ka.6.17; U.12.29; 14.7; 21.48); śilājatu<sup>853</sup> (Sū.38.37; Ci.9.6; 13.4–10ab; U.44.31); śīsa- (ka) (lead) (Sū.26.20; 38.62; 46.329; Ci.13.7; 18.38); sphatika (rock crystal) (Sū.8.15; 46.329 and 453; U.10.15; 12.17; 15.26; 18.92); srotoja (U.17.98); sudhāśarkarā<sup>854</sup> (Sū.11.11); surāstrajā<sup>855</sup> (Sū.37.14; Ci.1.60; 19.24); sūtāra<sup>856</sup> (Ka.3.14); suvarṇa (gold)<sup>857</sup> (Sū.1.32; 38.62; 46.326 and 450; Śā.10.68; Ci.35.12); svarnagairika (U.17.12); <sup>858</sup>tā-mra (copper) (Sū.26.20; 38.62; 46.327 and 452; Ci.9.23; 12.10; 18.38; 35.12; U.11.6; 12.29 and 40; 15.26; 17.85 and 97; 18.24); tāmracūrṇa (Ci.19.47; U.18.100); taṅka-ṇa (borax) (Sū.46.322 and 325; U.18.24); tāpīja<sup>859</sup> (Ci.13.17); tāpya<sup>860</sup> (U.44.23); tā-ṛa (silver)<sup>861</sup> (Ka.3.14); tīkṣṇaloha<sup>862</sup> (Ci.10.11; 12.15); trapu (tin) (Sū.26.20; 38.62; 46.329; Ci.13.5 and 7; 18.38; U.12.14; 54.33); tuttha (Ci.1.97; 2.69 and 73; 7.102; 9.10 and 27; 18.54; U.11.6 and 12; 12.16; 18.95); tutthaka (Sū.38.37; Ci.9.61); vaidūrya (Sū.46.329 and 453; U.10.15; 15.26; 18.92); vajrendra (Sū.46.329); vidruma (coral)<sup>863</sup> (Sū.46.329; U.10.15; 12.17; 17.98; 18.24).

## Chapter 8

### Authorities associated with the *Suśrutasaṃhitā*

#### Dhanvantari

Dhanvantari,<sup>1</sup> incarnated as Divodāsa, king of Kāśī, is the teacher of Suśruta and a number of other disciples in the *Suśrutasaṃhitā*.

In contrast with Divodāsa, Dhanvantari is not mentioned in Vedic literature,<sup>2</sup> apart from its latest layer, the *Sūtra* texts.

The later Indian tradition is acquainted with him as the god of healing, closely associated with the science of medicine.<sup>3</sup>

The earliest reference to Dhanvantari appears to be found in the *Kauśikasūtra* (74.6), which prescribes that a portion of the daily offering (*bali* *haraṇa*) be reserved for him.<sup>4</sup> Offerings to Dhanvantari which form part of various rituals (*bali* *haraṇa*, *caityayajña*, *pākayajña*)<sup>5</sup> are mentioned in *gṛhyasūtras*,<sup>6</sup> *dharmaśāstra* texts,<sup>7</sup> the *Mahābhārata*,<sup>8</sup> and some *Purāṇas*.<sup>9</sup>

Dhanvantari made his first appearance as one of the jewels that arose from the Ocean of Milk,<sup>10</sup> after it had been churned for a long time by the *Devas* and *Asuras* in order to obtain the drink of immortality called *amṛta*.<sup>11</sup>

Shortly after this event, he asked *Viṣṇu* for his share in the sacrifice and a place on earth; the shares having already been apportioned, the second request could be granted only; he would enjoy the dignity of a god and be worshipped by the twice-born with oblations of boiled rice and barley (*caru*), mantras, *vratas*, and muttered prayers (*japa*).<sup>12</sup>

The second incarnation of Dhanvantari took place in the *Dvāparayuga*, when he was born as the son or grandson of *Dīrghatamas* or *-tapas*, king of Kāśī.<sup>13</sup>

The *Suśrutasaṃhitā* refers to Dhanvantari, who was born again as Divodāsa, King of Kāśī,<sup>14</sup> as *Ādideva* (*Sū*.1.21) and *amaravara* (*Sū*.1.3); he is regarded as identical with the Dhanvantari who arose from the churning of the Milky Ocean (*Ni*.1.3; *U*.39.3).<sup>15</sup>

The *Brahmavaiartapurāṇa* is acquainted with a Dhanvantari who was a pupil of *Bhāskara*, and who composed a medical work called *Cikitsāṭattvajñāna*.<sup>16</sup> The same *Purāṇa* also tells a story about a Dhanvantari who was a toxicological expert, in particular skilled in counteracting the effects of snake venom.<sup>17</sup>

The *Bhaviṣyapurāṇa* tells about a Dhanvantari who was an incarnation of *Sūrya*; this Dhanvantari, born in Kāśī as the son of the *brāhmaṇa* *Kalpādatta*, became a follower of *Kṛṣṇacaitanya* and wrote a treatise called *Kalpaveda*. He chose Suśruta, the son of a king, as one of his pupils; Suśruta composed, on the model of the *Kalpaveda*, his own medical work, a book in one hundred chapters, with the title *Sauśrutatantra*.<sup>18</sup>

A narrative about a Dhanvantari, born as the son of a vaiśya girl called Virabhadra after her encounter with the sage Gālava, is found in the *Garuḍa-*, *Mārkaṇḍeya-* and *Skandapurāṇa*,<sup>19</sup> and in a work called *Ambaṣṭhācāracandrikā*.<sup>20</sup>

The Indian tradition is also familiar with a Dhanvantari who was one of the nine gems at the court of Vikramāditya.<sup>21</sup> This Dhanvantari is often thought to be the author of the *Dhanvantariyanighaṇṭu*.

Finally, some Indian authors refer to a Dhanvantari who established a gotra of the Sārasvatabrahmaṇas.<sup>22</sup>

Dhanvantari's name also appears in some of the lists of the Tamiḷ Siddhas.<sup>23</sup> The guru of Koṅkaṇavar, one of these Siddhas, was the pupil of a Dhanvantari. The introductory verses of some Tamiḷ medical treatises, for example Tēraiyaṛ's *Makākariśal*,<sup>24</sup> pay homage to Dhanvantari. A Tamiḷ medical work, called *Tānvantrivaiyāyam*,<sup>25</sup> which contains many rasayogas, is also known.<sup>26</sup>

Iconographic descriptions of the deity Dhanvantari are found in the *Samarāṅga-ṇasūtradhāra* (77.47), *Śilparatna*, and *Viṣṇudharmottarapurāṇa*.<sup>27</sup> Sculptures representing Dhanvantari and shrines dedicated to him are rare.<sup>28</sup>

Dhanvantari's name is not absent from Indian folk traditions. He is mentioned in a tale on the origin of the Camār caste and in the Pañjābī legend about a princess called Niwal Daī.<sup>29</sup>

A number of Indian scholars have tried to determine the number of different Dhanvantaris referred to in the texts. For obvious reasons, they have not succeeded in reaching a consensus; the number of Dhanvantaris distinguished varies from one to five.<sup>30</sup>

The divine Dhanvantari is, in general, associated with Viṣṇu. He is considered to be a part (aṃśa) of Viṣṇu, this god's twelfth avatāra,<sup>31</sup> or a part of Nārāyaṇa.<sup>32</sup> He is, however, also reckoned as a disciple of Śiva.<sup>33</sup> Dhanvantari is one of the 1,008 names of Śiva in the *Mahābhārata*.<sup>34</sup> The same epic lists Dhanvantari as one of the 108 names of Sūrya, the sun god.<sup>35</sup>

Dhanvantari is also known to the Buddhist<sup>36</sup> and Jaina traditions. He is a medical expert in the *Milindapañha*,<sup>37</sup> the *Ayoghara-Jātaka* (Nr. 510) refers to him, together with Vaitaraṇa and Bhoja, as a specialist in the treatment of snake-bites.<sup>38</sup> He is also mentioned in Āryaśūra's *Jātakamālā*.<sup>39</sup>

The *Vivāgasūya* (= Sanskrit *Vipākāśruta*), the eleventh aṅga of the Śvetāmbara Jaina canon, mentions a Dhanvantari as the court physician of Kanakaratha, king of Vijayapura. An *Āyurvedaśāstra* of Dhanvantari is mentioned in Śīlāṅka's *Caiṭpa-ṇamahāpurīṣacariya*.<sup>40</sup> Some more Dhanvantaris are referred to in other Jaina texts.<sup>41</sup>

The popularity of Dhanvantari is attested by sayings found in the *Hitopadeśa* and other works.<sup>42</sup>

Bhagvat Sinh Jee asserted that the term Dhanvantari is applied to a physician who is acquainted with no less than three hundred remedies for each and every affection.<sup>43</sup>

The divine Dhanvantari and his later namesakes are connected with the science of medicine. The Dhanvantari who arose during the churning of the Milky Ocean bore a pitcher (kamaṇḍalu, kalaśa), full of the drink of immortality (amṛta), in one of his hands, and is described as a medical expert.<sup>44</sup> The descendant of Dīrghatapas

is referred to as the founder of āyurveda.<sup>45</sup> The Dhanvantari who was the son of Vīrabhadra bore the title of Vaidya.<sup>46</sup>

In his second existence, as the descendant of Dīrghatapas, Dhanvantari received his āyurvedic knowledge from Bharadvāja; he divided the āyurveda into eight branches and taught it to his pupils.<sup>47</sup> The teacher is replaced by Bhāskara in the *Brahmavaivartapurāṇa*<sup>48</sup> and *Matsyapurāṇa*.<sup>49</sup> The *Brahmavaivartapurāṇa* mentions Garuḍa as the one who instructed Dhanvantari in mantrasāstra.<sup>50</sup>

The *Suśrutasaṃhitā* (Sū.1.20), *Aṣṭāṅgasaṃgraha* (Sū.1.6–10) and *Bhāvaprakāśa* (I.1.71–72) relate that Dhanvantari received the āyurveda from Indra.

Dhanvantari is a medical expert in general or a specialist in toxicology in the non-medical sources. The medical treatises regard him as an authority without special qualifications or as a specialist in surgery (śalya).

The *Suśrutasaṃhitā* presents him in his incarnation as Divodāsa as a surgeon.<sup>51</sup> Dalhaṇa gives, as an etymology of Dhanvantari's name: dhanuḥ śalyasāstraṃ, tasya antaṃ pāram iyarti gacchatīti dhanvantariḥ,<sup>52</sup> which means that he completely mastered the science of surgery (dhanuḥ = śalyasāstra). Cakrapāṇidatta's *Bhānumatī*<sup>53</sup> quotes the same etymological explanation, preceded by another one: jagadarthasā-dhanād dhanur dharmāḥ, tasyānto vyādhyakālamrtyusaṃpādako 'dharmāḥ, tasyārir, which means that he was the enemy of adharma, which leads to an untimely death due to disease.<sup>54</sup>

The dhānvantarīyāḥ, i.e., those following Dhanvantari's teachings, are obviously surgeons.

Dhanvantari, in his role as Suśruta's teacher, was also an expert in aśvasāstra<sup>55</sup> and rites beneficial to cattle.<sup>56</sup>

The *Suśrutasaṃhitā* refers frequently to Dhanvantari, to whom many laudatory epithets are given: ahataśāsana (Ka.1.3), bhiṣajāṃ varaḥ (Ni.1.5), dharmabhṛtām varīṣṭhaḥ (Ni.1.3; Ci.2.3), mahāprajña (Ka.4.3), nimitāntarabhūmipa (Ni.9.3), sarvāmaraguru (Ni.9.3), sarvasāstrārthatattvajña (U.18.3), sarvasāstraviśārada (Ka.4.3), śrīmanta (Ni.9.3), tapodharmabhṛtām varaḥ (Ka.1.3), tapodṛṣṭi (U.18.3), vāgviśārada (Ci.2.3), udāradhī (U.18.3).

Works ascribed to one or more authors called Dhanvantari are: (1) *Auśadha-prayoga(kārikā)*,<sup>57</sup> (2) *Āyurvedasārāvalī*,<sup>58</sup> (3) *Bālacikitsā*,<sup>59</sup> (4) *Cārucaryā*,<sup>60</sup> (5) *Cikitsāḍipikā*,<sup>61</sup> (6) *Cikitsāsāra(saṃgraha)*,<sup>62</sup> (7) *Cikitsātattvajñāna*,<sup>63</sup> (8) *Dhanvantarisaṃhitā*,<sup>64</sup> (9) *Dhātukalpa*,<sup>65</sup> (10) *Dinacaryā*,<sup>66</sup> (11) *Guḍūcyādi*,<sup>67</sup> (12) *Guṭīkādhiḥkā*,<sup>68</sup> (13) *Kālaḥjñāna*,<sup>69</sup> (14) *Māsavarṣacikitsā*,<sup>70</sup> (15) *Nāmamālā* or *Śabdasaṃketakalikā*,<sup>71</sup> (16) *Nibandhasaṃgraha*,<sup>72</sup> (17) *Samnipātakalikā*,<sup>73</sup> (18) *Vaidyabhāskara-rodaya*,<sup>74</sup> (19) *Vaidyasāra*,<sup>75</sup> (20) *Vaidyavidyāvinoda*,<sup>76</sup> (21) *Vidyāprakāśacikitsā*,<sup>77</sup> (22) *Yogacintāmaṇi*,<sup>78</sup> (23) *Yogadīpikā*.<sup>79</sup> A *Roganidāna* and *Vaidyacintāmaṇi* are sometimes added to this list.<sup>80</sup>

Several works associated with the name of Dhanvantari are known.<sup>81</sup>

A *Dhanvantarisaṃhitā* is one of the sources of the *Amṛtasāgara*.<sup>82</sup> The *Āyurveda-vijñāna* mentions a *Śākteyagrantha* by Dhanvantari.<sup>83</sup>

The *Dhanvantarīyanighaṇṭu* is said to have emanated from the mouth of Dhanvantari.



Authors and works quoting Dhanvantari or referring to him are:<sup>84</sup> *Agnipurāṇa*,<sup>85</sup> *Ātreyaśaṃhitā*,<sup>86</sup> Basava's *Śivatattvaratnākara*,<sup>87</sup> *Bhāvaprakāśa*,<sup>88</sup> Bower MS,<sup>89</sup> Cakrapāṇidatta,<sup>90</sup> Candranandana,<sup>91</sup> Candrapāṇi,<sup>92</sup> *Carakasāṃhitā*,<sup>93</sup> *Ḍaḥaṇa*,<sup>94</sup> *Garuḍapurāṇa*,<sup>95</sup> Indu,<sup>96</sup> the *Kairālī* commentary on the *Aṣṭāṅgahṛdayasaṃhitā*,<sup>97</sup> *Kāśya-pasaṃhitā*,<sup>98</sup> Kṣīrasvāmin's commentary on the *Amarakośa*,<sup>99</sup> *Nāṭījñānaprakāśikā*, Narahari's *Vāgbhaṭamantra*,<sup>100</sup> Nārāyaṇa's commentary on the *Amarakośa*,<sup>101</sup> *Rasakakṣāpūṭa*, *Sahasrayoga*,<sup>102</sup> Śivadāśasena,<sup>103</sup> Śivadattamiśra's auto-commentary on the *Śivakośa*,<sup>104</sup> *Soḍhala*,<sup>105</sup> Śrīdāśapaṇḍita,<sup>106</sup> *Ṭoḍara*,<sup>107</sup> and *Vāgbhaṭa*.<sup>108</sup>

A MS of a *Dhanvantarimantra* is described by P.K. Gode.<sup>109</sup>

Dhanvantari is known as *Thaṅ-la-bar* in the Tibetan medical tradition.<sup>110</sup>

Authors and works quoting from or referring to the *dhanvantarīyāḥ*, i.e., the representatives of a surgical school connected with the teachings of Dhanvantari, are: *Aṣṭāṅgasamgraha*,<sup>111</sup> *Ātreyaśaṃhitā*,<sup>112</sup> Cakrapāṇidatta,<sup>113</sup> Candrapāṇi,<sup>114</sup> *Carakasāṃhitā*,<sup>115</sup> *Gayadāśa*,<sup>116</sup> Hemādri,<sup>117</sup> Jejjāṭa,<sup>118</sup> *Parameśvara*,<sup>119</sup> Śivadattamiśra,<sup>120</sup> Śrīdāśapaṇḍita,<sup>121</sup> and *Tīsaṭa*.<sup>122</sup> The *dhanvantarāḥ* are cited by Aruṇadatta.<sup>123</sup>

An unidentified work called *Dhanvantari* is quoted by Aruṇadatta.<sup>124</sup>

Formulae attributed to Dhanvantari or associated with his name are: *aśvagandhā-dyataila*,<sup>125</sup> *br̥hacchr̥ṅgārābhra*,<sup>126</sup> *br̥hannārīkelakhaṇḍa*,<sup>127</sup> *dhanvantaraghr̥ta*,<sup>128</sup> *dhanvantarasarpis*,<sup>129</sup> *dinajvaraprasamanī vaṭī*,<sup>130</sup> *dvātriṃśakaguggulu*,<sup>131</sup> *gaṅgādharayoga*,<sup>132</sup> *kāmadevacūṛṇa*,<sup>133</sup> *kāmadevaguṭikā*,<sup>134</sup> *madhupakvahr̥itakī*,<sup>135</sup> *mahāmṛtyu-ñjayalauha*,<sup>136</sup> *mahodadhirasa*,<sup>137</sup> a *mātrābasti* to be used against *bālapakṣāghāta*,<sup>138</sup> *mṛtyuñjayalauha*,<sup>139</sup> *mṛtyuñjayaloha*,<sup>140</sup> *pāśupatarasa*,<sup>141</sup> *pāśupatāstrarasa*,<sup>142</sup> *rājavalabharasa*,<sup>143</sup> *rāmabāṇarasa*,<sup>144</sup> *rasābhraguggulu*,<sup>145</sup> *rasarājendra*,<sup>146</sup> *rasāyanavaṭī*,<sup>147</sup> *rasendraguṭikā*,<sup>148</sup> *rasendravatīkā*,<sup>149</sup> *rogavidāraṇarasa*,<sup>150</sup> *romavedharasa*,<sup>151</sup> *saptatrimśatikaguggulu*,<sup>152</sup> *saptaviṃśatikaguggulu*,<sup>153</sup> *sindūrarasa*,<sup>154</sup> *svarṇakṣīrīrasa*,<sup>155</sup> *tālābhasmaprayoga*,<sup>156</sup> *tālasindūra*,<sup>157</sup> *vāriśoṣaṇarasa*,<sup>158</sup> *viṣamajvarāntakalauha*,<sup>159</sup> and *viṣamajvarāntakaloha*.<sup>160</sup>

### Divodāśa

Divodāśa,<sup>161</sup> king of Kāśī and an incarnation of Dhanvantari,<sup>162</sup> is the teacher of Suśruta and other disciples in the *Suśrutasaṃhitā*.<sup>163</sup>

Divodāśa is the name of several persons mentioned in Vedic and post-Vedic literature. It is not evident at first sight why a Divodāśa should be presented as an expert in the medical science, in particular as a surgical specialist; his association with medicine may have been facilitated by Divodāśa's relationship with Bharadvāja in Vedic literature<sup>164</sup> and by his descent from a Dhanvantari in the *Mahābhārata* and a number of *Purāṇas*.

A Divodāśa appears eighteen times in the *Ṛgveda*.<sup>165</sup> Atithigva, a name occurring thirteen times in the *Ṛgveda*,<sup>166</sup> is by most scholars regarded as an epithet of Divodāśa, at least in the majority of the verses where the word is found.<sup>167</sup> Divodāśa is a king, often associated with other kings; Bharadvāja, repeatedly mentioned together with Divodāśa,<sup>168</sup> may have been his purohita.<sup>169</sup>

Other Vedic texts in which a Divodāśa or one of his descendants appears are: the

*Kāṭhakaśaṃhitā* (7.8),<sup>170</sup> *Kauṣītakībrāhmaṇa* (26.5),<sup>171</sup> *Kauṣītakībrāhmaṇopaniṣad* (3.1),<sup>172</sup> *Āśvalāyanaśrautasūtra*,<sup>173</sup> *Baudhāyanaśrautasūtra*,<sup>174</sup> and Kātyāyana's *Saṛvāṅkramaṇī* of the *R̥gveda*.<sup>175 176</sup>

The *Mahābhārata* tells several stories about a Divodāsa who was the father of Pratardana: (1) Divodāsa, son of Sudeva and father of Pratardana, was installed as the king of Kāśī, and built, at the instance of Indra, a city called Vārāṇasī; he lost a battle with the Haihayas and sought refuge in the hermitage of Bharadvāja; his son, Pratardana, inflicted a defeat on the Haihayas;<sup>177</sup> (2) Divodāsa, great-grandson of Dhanvantari, son of Bhīmaratha and father of Pratardana, established his capital at Vārāṇasī;<sup>178</sup> (3) Divodāsa Bhaimaseni, king of Kāśī, was the father of Pratardana.<sup>179</sup>

Divodāsa is known to a number of Purāṇas,<sup>180</sup> where he is the grandson or great-grandson of Dhanvantari, the son of Ketumant or Bhīmaratha, and the father of Pratardana.<sup>181</sup>

Another Divodāsa, son of Badhyaśva, Bahvaśva(n), Brhadaśva, Cañcāśva, Pañcāśva, or Vindhyāśva, is referred to in the *Agnipurāṇa*,<sup>182</sup> *Matsyapurāṇa*,<sup>183</sup> *Vāyupurāṇa*,<sup>184</sup> and *Viṣṇupurāṇa*;<sup>185</sup> this Divodāsa was a Pāñcāla.<sup>186</sup>

Several scholars attempted to establish connections between the various Divodāsas mentioned in Vedic and post-Vedic texts without reaching an agreement.<sup>187</sup> Others are convinced that the Divodāsa who descended from Dhanvantari is not related to the Vedic Divodāsa.<sup>188</sup>

The Divodāsas discussed so far are nowhere associated with the science of medicine, but it should be remembered that the Vedic Divodāsa was Bharadvāja's patron. It may not be accidental that the medical tradition presents Divodāsa as the teacher of Suśruta, and Bharadvāja as the one who passed the āyurveda on to Ātreya. Both Divodāsa and Bharadvāja received the science from Indra.

The identity of the Divodāsa, king of Kāśī and regarded as an incarnation of Dhanvantari, is a problem, since none of his namesakes appearing in non-medical texts is described as a surgical specialist or a physician in general. Dhalhaṇa does not identify him in his commentary (ad Su.Sū.1.3) and restricts himself to the remark that he is a royal sage (rājarṣi),<sup>189</sup> who has given up his rule over the country (janapada) of Vārāṇasī<sup>190</sup> and has withdrawn to a hermitage (āśrama). Almost the same comments are found in Cakrapāṇi's *Bhāṇumatī*. Both commentators add some etymological explanations of the name Divodāsa.<sup>191</sup>

A large part of the secondary literature does not focus on the identity of Divodāsa, but on that of the Dhanvantari with whom he is identical.<sup>192</sup>

Divodāsa's name is not often met with in the *Suśrutasaṃhitā*. All the chapters begin with the statement that a particular subject will be discussed according to the words spoken by Dhanvantari. The last chapter of the *Uttaratantra*, however, though beginning in the same way, presents Suśruta as putting a question to Divodāsa, who is adorned with a number of laudatory epithets: aṣṭāṅgavedavidvas, mahaujas, chinnaśāstrārthasaṃdeha, and sūkṣmāgādhāgamodadhi (U.66:3-4ab). Some more epithets are: mahātapaś (U.66.5cd), nṛpaśārdūla (U.66.6ab), and saṃśayacchid (U.66.5cd).<sup>193</sup>

Dhanvantari, Divodāsa and Kāśirāja, three names for one and the same person in the *Suśrutasaṃhitā*, are regarded as three different pupils of Bhāskara in the

*Brahmavaivartapurāṇa*, where each of them is reported to have composed a medical treatise; the titles of these works are *Cikitsātattvavijñāna*, *Cikitsādarpaṇa* and *Cikitsākaumudī* respectively.<sup>194</sup> A similar view is expressed in a verse from an unknown source, which enumerates six healers (vyādhighātaka): Dhanvantari, Divodāsa, Kāśīrāja, the Aśvins, Nakula and Sahadeva.<sup>195</sup>

Divodāsa is mentioned as a medical authority in Dhanvantari's *Samnipātakalikā*.

A work on dharmaśāstra, called *Divodāsaprakāśa*, was written by a later namesake.<sup>196</sup>

### Kaśīrāja

Kāśīrāja<sup>197</sup> is the title of Divodāsa,<sup>198</sup> an incarnation of Dhanvantari, in the *Suśrutasaṃhitā*.<sup>199</sup>

The quotations from and references to him are not always clear. Some sources regard him as an authority different from Divodāsa and Dhanvantari.

The *Brahmavaivartapurāṇa* mentions Dhanvantari, Divodāsa and Kāśīrāja among the sixteen pupils of Bhāskara and ascribes a *Cikitsākaumudī* to Kāśīrāja.<sup>200</sup>

An anonymous work associated with his name is the *Kāśīrājaśaṃhitā*.<sup>201</sup>

Authors and works quoting Kāśīrāja or referring to him are: the Bower MS,<sup>202</sup> Dhanvantari's *Cikitsākalikā*, Govindasena's *Paribhāṣāpradīpa*,<sup>203</sup> Ravigupta's *Siddhasāra*,<sup>204</sup> and Somadeva's *Yaśastilaka*.<sup>205</sup>

Formulae attributed to Kāśīrāja are: *amṛtaprāśaghṛta*,<sup>206</sup> *bṛhatpūrṇacandraraśa*,<sup>207</sup> *garbhavilāsataila*,<sup>208</sup> *pittāntakarasa*,<sup>209</sup> *uśīrādyataila*,<sup>210</sup> and *uśīrāsava*.<sup>211</sup>

Apart from Kāśīrāja, two other royal sages, Vāmaka and Vāryovida, mentioned in āyurvedic texts, are connected with the city of Kāśī.<sup>212</sup>

### Nāgārjuna

Nāgārjuna is the most famous representative of the Mādhyamika school of Mahāyāna Buddhism. Many philosophical works are associated with his name.<sup>213</sup>

The connection between the philosopher and the large number of treatises on diverse subjects, said to be by someone called Nāgārjuna, is a vexed question, still unsolved, in spite of the efforts of a long series of authors.

One group of these scholars is convinced, or inclined to assume, that the philosopher Nāgārjuna was also interested in Tantrism, magic, medicine, alchemy, etc.<sup>214</sup> Others are more cautious, wanting not to exclude the possibility of such a broad range of interests.<sup>215</sup> The majority of those who expressed their opinion on the subject distinguish a number of authors called Nāgārjuna, in order to explain the diversity of the treatises.<sup>216</sup>

A Tantric author, engaged in alchemy and magic, is very often thought to be distinct from the philosopher.<sup>217</sup> A third Nāgārjuna is supposed to be the alchemist of this name referred to by al-Bīrūnī.<sup>218</sup>

In my opinion it does not have much sense to engage in discussions on the number of different Nāgārjunas to be distinguished. The large number of very diverse works

ascribed to Nāgārjuna and the material relating to his life are in favour of the hypothesis that Nāgārjuna developed into a legendary figure, who was not only a philosopher, but also an alchemist and a colourful wizard, to whom all kinds of writings could be attributed by Buddhists, Hindus and Jains.<sup>219</sup>

The non-philosophical treatises fathered upon Nāgārjuna may conveniently be divided into four groups, concerned with medicine, alchemy, magic, and erotics.

References to Nāgārjuna as a physician of an āyurvedic type are far from rare. Nāgārjuna's *Jīvasūtra* is a work inspired by the āyurvedic tradition. The *Yogaśataka* is ascribed to Nāgārjuna in part of the MSS. The *Ārogyamañjarī* and *Vārtāmālā*, known from some quotations, were probably treatises of an āyurvedic type. More quotations from works of Nāgārjuna that contain āyurvedic material are found in a number of medical treatises.<sup>220</sup>

Nāgārjuna is in particular associated with the treatment of eye diseases. He attained the siddhi of the eye medicine according to Tāranātha's 'Book of the seven revelations'.<sup>221</sup> An ophthalmological treatise, now lost, but used by later Chinese medical authors, is listed in the *Sung Shih*.<sup>222</sup> The formula of the nāgārjunavarti, a medicine against eye diseases, found for the first time in Vṛnda's *Siddhayaoga*, became famous and was incorporated in many medical works of a later date; this medicine, which contains copper and copper sulphate, was written by Nāgārjuna on a pillar in Pāṭaliputra.<sup>223</sup>

Nāgārjuna's association with rasāyana and longevity forms the link between medicine and alchemy. He is credited with a very long life and the elixir of longevity.<sup>224</sup> A *Rasāyanaśāṅhitā* of Nāgārjuna is quoted by Vaṅgasena. Al-Bīrūnī attributes a comprehensive book on this subject to him.<sup>225</sup>

Nāgārjuna is said to be the author of alchemical treatises. He is frequently mentioned as an authority on the subject and regarded as a Rasasiddha, called Siddhanāgārjuna.<sup>226</sup> His association with alchemy need not surprise because a large work, attributed to him, the *Mahāprajñāpāramitopadeśa*,<sup>227</sup> refers to the transmutation of metals and other substances into gold.<sup>228</sup> Aurifaction is one of Nāgārjuna's interests in the biographies.<sup>229</sup>

Nāgārjuna is in particular an expert on metallurgy and the use of metals and metallic compounds in medicine. He is credited with a *Lohaśāstra*, a treatise on iron and other metals, extensively quoted in the *Cakraḍatta*<sup>230</sup> and later works. References by Āḍhamalla, Kāśīrāma and the commentator on the *Rasendramāṅgala* give evidence of Nāgārjuna's preoccupation with iron and its varieties.<sup>231</sup> His knowledge about swords<sup>232</sup> is probably connected with this preoccupation.

A number of works on magic and marvellous feats are fathered upon a Nāgārjuna, who is usually considered to be identical with the alchemist. Well-known among these treatises are the *Kakṣapūṭa* and *Yogaratanmālā*. The biographies relate that Nāgārjuna was an expert in treasure-finding,<sup>233</sup> making himself invisible,<sup>234</sup> etc. He learned the art from a master-magician, called Saraha or Rāhula;<sup>235</sup> this teacher is replaced by another great magician, Pādaliptasūri, in the Jain sources.<sup>236</sup>

Nāgārjuna's treatises on erotics, called *Kāmasāstra*, *Ratiramaṇa* and *Ratisāstra*, probably represent one and the same work.

As I have mentioned, the Mādhyamika philosopher Nāgārjuna developed into a legendary figure in a wide cultural area. Material relating to his life, activities and works is found in Indian, Tibetan and Chinese sources.<sup>237</sup> This hagiographic literature depicts him as a composite personality, whose biography lends itself to embellishments of all sorts. The stories concerning his life and activities were in the course of time adapted to the needs of Buddhist, Hindu and Jain communities,<sup>238</sup> as can be illustrated by the works attributed to him and the holy places where he is said to have resided.

The *Yogaśataka*, a treatise not coloured by a particular religious persuasion, is said to be by Nāgārjuna in Buddhist and by Vararuci in Hindu circles.

The Buddhist accounts of his life mention Bodhgayā and Nālandā<sup>239</sup> as places he visited on his wide travels; the Hindus believe that he stayed at the holy mountain site of Śrīparvata,<sup>240</sup> while the Jain stories associate him with their sacred mountain Śatru-ñjaya.<sup>241</sup>

Another place connected with Nāgārjuna is Nāgārjunakoṇḍā.<sup>242</sup> The reference to a Nāgārjuna who was a native of the fort Daihak near Somnāth, found in al-Bīrūnī's India, is, I suppose, based on Jain sources which describe him as a resident of Gujārāt.

Medical works ascribed to Nāgārjuna<sup>243</sup> are:

- 1 *Ārogyamañjarī*.<sup>244</sup> Quoted by Niścalakara<sup>245</sup> and Vijayarakṣita.<sup>246</sup>
- 2 *Āryamūlakoṣamahauṣaḍhāvalī*. This work, lost in the original, is preserved in a Tibetan translation. Tibetan title: *Hphags-pa rca-baḥi m'jod sman chen-poḥi rim-pa*; translated by Chos-skyoñ bzañ-po (Dharmapālabhadra) from the monastery of Ža-lu.<sup>247</sup>
- 3 *Āryarājanāmavaṭikā*. This treatise, lost in the original, is preserved in a Tibetan translation. Tibetan title: *Hphags-pa rgyal-ma žes-bya-baḥi ril-bu*.<sup>248</sup>
- 4 *Avabheṣajakaḷpa*. This work, lost in the original, is preserved in a Tibetan translation. Tibetan title: *Sman a-baḥi cho-ga*.<sup>249</sup>
- 5 *Bdud-rči bum-pa*.<sup>250</sup>
- 6 *Cittānandapaṭīyasī*.<sup>251</sup>
- 7 *Dhūpayogacaturāṅgakiyā*. This work, lost in the original, is preserved in a Tibetan translation. Tibetan title: *Spos-kyi sbyor-ba reḥu-char byas-pa*.<sup>252</sup>
- 8 *Dhūpayogaratnamālā*. This work, lost in the original, is preserved in a Tibetan translation. Tibetan title: *Spos sbyor rin-po-cheḥi phreñ-ba*. Translated by an unknown paṇḍita from Kāśmīr, assisted by Rin-chen bzañ-po.<sup>253</sup>
- 9 *Gces-bsdus*.<sup>254</sup>
- 10 *Gnad-ḥgrel gcig-śes kun-grol*.<sup>255</sup>
- 11 *Gsañ-thig skar-khuñs phye-ba ḥdra*.<sup>256</sup>
- 12 *Gso ma ra ča mje gso-baḥi rgyud*.<sup>257</sup>
- 13 *Jalastambhanamantra*.<sup>258</sup>
- 14 *Jīvasūtra*.<sup>259</sup>
- 15 *Kakṣapaṭa*.<sup>260</sup>
- 16 *Kalyāṇakāmadhenu*.<sup>261</sup>

- 17 *Kāmaśāstra*.<sup>262</sup>
- 18 *Kanakamañjarī*.<sup>263</sup>
- 19 *Kautūhalacintāmaṇi*.<sup>264</sup>
- 20 *Kautukacintāmaṇi*.<sup>265</sup>
- 21 *Laghuyogaratnāvalī*.<sup>266</sup>
- 22 *Lag-len gsal-baḥi sgron-me*.<sup>267</sup>
- 23 *Lauha-* or *Lohaśāstra*.<sup>268</sup> Quoted in *Cakradatta*,<sup>269</sup> *Rasakāmadhenu*,<sup>270</sup> *Rasendracintāmaṇi*,<sup>271</sup> Śivadāsaśena's commentary on the *Cakradatta*,<sup>272</sup> and Vaṅgasena's *Cikitsāsārasaṃgraha*.<sup>273</sup> Nāgārjuna's *Lohatantra*, probably identical with the *Lohaśāstra*, is referred to in Sureśvara's *Lohasarvasva*.<sup>274</sup> The quotations in the commentaries of Āḍhamalla and Kāśīrāma on the *Śārṅgadharaśāṃhitā*<sup>275</sup> are apparently from Nāgārjuna's *Lohaśāstra*, as well as Haridattaśāstrin's quotation<sup>276</sup> and one found in Śivadāsa's commentary on the *Carakasāṃhitā*.<sup>277</sup>
- 24 *Mahendrakalpa*.<sup>278</sup> Quoted by Nīścala.<sup>279</sup>
- 25 *Mdo lña*.<sup>280</sup>
- 26 *Mgo-thig rin-chen gnad-hgrel*.<sup>281</sup>
- 27 *Nāgārjuna*.<sup>282</sup>
- 28 *Nāgārjunakalpa*.<sup>283</sup>
- 29 *Nāgārjunatantra*.<sup>284</sup> Mentioned in Khare's commentary on the *Rasaratnasamuccaya*,<sup>285</sup> and Śivadāsaśena's commentary on the *Carakasāṃhitā*.<sup>286</sup> Śivadāsa probably refers to the *Lohaśāstra* or *-tantra*.
- 30 *Nāgārjunavaidyaka*.<sup>287</sup>
- 31 *Nāgārjunīya*.<sup>288</sup> Quoted by Gayadāsa<sup>289</sup> and Nīścalakara.<sup>290</sup>
- 32 *Rasaratnākara*.<sup>291</sup>
- 33 *Rasārṇava*.<sup>292</sup>
- 34 *Rasasiddhiśāstra*.<sup>293</sup>
- 35 *Rasāyanasaṃhitā*.<sup>294</sup> Quoted by Vaṅgasena.<sup>295</sup>
- 36 *Rasendramaṅgala*.<sup>296</sup>
- 37 *Ratiramaṇa*.<sup>297</sup>
- 38 *Ratiśāstra*.<sup>298</sup>
- 39 *Rca-thig gser-gyi thig-le*.<sup>299</sup>
- 40 *Sārasaṃgraha*.<sup>300</sup>
- 41 *Śa-thig rin-chen śags-pa*.<sup>301</sup>
- 42 *Siddhanāgārjunīya*.<sup>302</sup>
- 43 *Siddhaprayogatantra*.<sup>303</sup>
- 44 *Somarāja*.<sup>304</sup>
- 45 *Vaidyanighaṇṭu*.<sup>305</sup>
- 46 *Vāntāmālā*.<sup>306</sup> Quoted by Nīścalakara<sup>307</sup> and Śrīkaṇṭhadatta.<sup>308</sup>
- 47 *Yan-lag gnad-kyi mñub-brčugs*.<sup>309</sup>
- 48 *Yantramantṛa*.<sup>310</sup>
- 49 *Yogamañjarī*.<sup>311</sup> Quoted by Nīścalakara.<sup>312</sup>
- 50 *Yogamuktāvalī*.<sup>313</sup>
- 51 *Yogaratanmālā*.<sup>314</sup>
- 52 *Yogasāra*.<sup>315</sup> Quoted by Trimalla<sup>316</sup> and Vaṅgasena<sup>317</sup>. A *Yogasāra* that may well

be Nāgārjuna's work of this title<sup>318</sup> is cited in the *Pāradasaṃhitā*,<sup>319</sup> Trimalla's *Yogatarāṅgiṇī*,<sup>320</sup> and the latter's *Bṛhadyogatarāṅgiṇī*.<sup>321</sup>  
53 *Yogaśataka*.<sup>322</sup>

Works sometimes ascribed to Nāgārjuna are the *Rasakakṣāputa*,<sup>323</sup> *Rasavaśeṣikasūtra*,<sup>324</sup> and *Rudrayāmalatantra*.<sup>325</sup>

Nāgārjuna is also credited with the revision of the *Suśrutasaṃhitā* and the addition of its *Uttaratantra*.<sup>326</sup>

A *Kautukasāroddhāra* is said to be based on the *Nāgārjunasaṃhitā*.<sup>327</sup> A *Nāgārjunakautuka* is also recorded,<sup>328</sup> as well as a *Nāgārjunasiddhānta* on *rasāyana*.<sup>329</sup> A *Nāgārjunīvidyā* was written by an unknown Jain author.<sup>330</sup>

The *nāgārjunīyāh*, the adherents to the school of Nāgārjuna, are referred to in Nārhari's *Vāgbhaṭakhaṇḍanamaṇḍana*.<sup>331</sup>

Joseph Needham mentions that the bibliography of the *Sui Shu* (History of the Sui dynasty) lists three lost medical treatises of Nāgārjuna: the *Lung-Shu Phu-Sa Yao Fang* (Pharmaceutics of the Bodhisattva Nāgārjuna), *Lung-Shu Phu-Sa Yang Shēng Fang* (Macrobiotic prescriptions of the Bodhisattva Nāgārjuna) and *Lung-Shu Phu-Sa Ho Hsiang Fa* (Methods of the Bodhisattva Nāgārjuna for compounding perfumes). The bibliography of the *Sung Shih* (History of the Sung dynasty) records a lost *Lung-Shu Yen Lun* (Discourse of Nāgārjuna on eye diseases), used in the composition of later works, such as the sixteenth-century *Yen Kho Lung-Mu Lun* (Nāgārjuna's discussions on ophthalmology).<sup>332</sup>

Works and authors quoting Nāgārjuna or referring to him are:<sup>333</sup> Āḥamallā,<sup>334</sup> Ānandakanda,<sup>335</sup> Anantakumāra,<sup>336</sup> Āśubodha and Nityabodha Senagupta's commentary on the *Rasaratnasamuccaya*,<sup>337</sup> Āyurvedaprakāśa,<sup>338</sup> Basavarājīya,<sup>339</sup> Bhāratabhaiṣajyaratnākara,<sup>340</sup> Bheṣajasaṃhitā,<sup>341</sup> Bheṣajamañjūsāsannaya, Bhoja's *Yuktikalpataru*,<sup>342</sup> Bṛhadrasarājasundara,<sup>343</sup> Cakrapāṇidatta's *Cikitsāsamgraha*,<sup>344</sup> Candraṭa's *Yogaratanasamuccaya*, Caturbhūja's commentary on the *Rasahrdaya*,<sup>345</sup> an anonymous *Cikitsāsārasaṃgraha*,<sup>346</sup> Ḍalhana,<sup>347</sup> Dattarāma's *Bṛhadrasarājasundara*,<sup>348</sup> Dhanvantarīyanighaṇṭu,<sup>349</sup> Gayadāsa,<sup>350</sup> Gopālādāsa's *Cikitsāmṛta*, Govindadāsa's *Bhaiṣajyaratnāvalī*,<sup>351</sup> Gulrājśarmamiśra's commentary on the *Āyurvedaprakāśa*,<sup>352</sup> Haridattasāstrin's commentary on the *Rasatarāṅgiṇī*,<sup>353</sup> Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*,<sup>354</sup> Jinadattasūri,<sup>355</sup> Kāmaratna,<sup>356</sup> Kāśīrāma,<sup>357</sup> Khare's commentary on the *Rasaratnasamuccaya*,<sup>358</sup> Lauhapradīpa, Lohapaddhati,<sup>359</sup> Nāganātha's *Nidānapradīpa*, Nīścalakara,<sup>360</sup> *Pāradasaṃhitā*,<sup>361</sup> *Rasacandāṃśu*,<sup>362</sup> *Rasajalanidhi*,<sup>363</sup> *Rasakakṣāputa*, *Rasakāmadhenu*,<sup>364</sup> *Rasamañjarī*,<sup>365</sup> *Rasapaddhati*,<sup>366</sup> *Rasaprakāśasudhākara*,<sup>367</sup> *Rasarājālakṣmī*,<sup>368</sup> *Rasarājasundara*,<sup>369</sup> *Rasaratnadīpikā*,<sup>370</sup> *Rasaratnākara*,<sup>371</sup> *Rasatantrapradīpa*,<sup>372</sup> *Rasaratnasamuccaya*,<sup>373</sup> *Rasasaṅketakalikā*,<sup>374</sup> *Rasasindhu*,<sup>375</sup> *Rasatarāṅgiṇī*,<sup>376</sup> *Rasayogasāgara*,<sup>377</sup> *Rasendracintāmaṇi*,<sup>378</sup> *Rasendracūḍāmaṇi*,<sup>379</sup> *Rasendramaṅgala*,<sup>380</sup> *Rasendrapurāṇa*,<sup>381</sup> *Rasendraratnakṣa*,<sup>382</sup> *Rasendrasambhava*,<sup>383</sup> *Rasendrasārasaṃgraha*,<sup>384</sup> *Rasopaniṣad*,<sup>385</sup> *Ratnākaraśaḍhayogagrantha*, Revāṇasiddha's *Virabhaṭīya*, *Śābaratantra*,<sup>386</sup> *Samkṣiptasāra*,<sup>387</sup> *Siddhasārasaṃhitā*, Śivādāsaśena,<sup>388</sup> Sōdhala,<sup>389</sup> Śrīkaṇṭhadatta,<sup>390</sup> *Sva-*

*ṛṇarupyasiddhiśāstra*,<sup>391</sup> Ṭoḍara,<sup>392</sup> Trimalla,<sup>393</sup> *Vaidyakaśāroddhāra*,<sup>394</sup> *Vaidyakaśāstrapravartakācāryānāmasamuccaya*, Vaṅgasena,<sup>395</sup> Vāsudeva's *Vāsudevānubhava*, Vijayarakṣita,<sup>396</sup> Vṛnda,<sup>397</sup> and *Yogaratanākara*.<sup>398</sup>

Indian sources in Sanskrit and Prakrit, giving accounts of Nāgārjuna's life or referring to his activities<sup>399</sup> are: the *Bṛhatkathāmañjarī* of Kṣemendra,<sup>400</sup> *Caturaśītisiddhapravṛtti* of Abhayadatta,<sup>401</sup> *Gorakṣasiddhāntasaṃgraha*,<sup>402</sup> *Harṣacarita* of Bāṇa,<sup>403</sup> *Ka-thāsaritsāgara* of Somadeva,<sup>404</sup> *Kumārapālaprabodhaprabandha*,<sup>405</sup> *Kumārapālapratibodha* of Somaprabhācārya,<sup>406</sup> *Kumārapālapratibodhasaṅkṣepa*,<sup>407</sup> *Līlāvatīpariṇaya* of Kutūhala,<sup>408</sup> *Navanāthacaritra*,<sup>409</sup> the commentary on the *Pinḍaviśuddhi*,<sup>410</sup> *Prabandhacintāmaṇi* of Merutuṅga,<sup>411</sup> *Prabandhakośa* of Rājasekharasūri,<sup>412</sup> *Prabhāvakacarita* of Prabhācandrasūri,<sup>413</sup> *Purāṇaprabandhasaṃgraha*,<sup>414</sup> *Rājatarāṅgiṇī* of Kālhaṇa,<sup>415</sup> *Śābaratantra*,<sup>416</sup> *Sādhana-mālā*,<sup>417</sup> the commentary on the *Śatruṅḡjayakalpa* of Dharmaghoṣa,<sup>418</sup> *Siddhānta-mānāya*,<sup>419</sup> and *Vividhatīrthakalpa* of Jinaprabhāsūri.<sup>420</sup>

The *Navanāthacaritra* of Gaurana, written in Telugu, describes a visit of Nāgārjuna to Śrīśaila; this work refers to an Ātreya as an alchemist and a pupil of Nāgārjuna.<sup>421</sup>

Nāgārjuna is also mentioned in Devacandra's *Rājāvalīkathā*.<sup>422</sup>

Another Nāgārjuna known to the Jain tradition was a disciple of Himavanti; he is referred to in the *Nandisutta*.<sup>423</sup>

Tibetan sources on Nāgārjuna<sup>424</sup> and his life are the *Āryamañjuśrīmūlakalpa*,<sup>425</sup> *Bkaḥ-babs bdun-ldan* of Tāranātha,<sup>426</sup> *Chos-ḥbyun* of Bu-ston,<sup>427</sup> *Dpag-bsam ljon bzai* of Sum-pa mkhan-po Ye-śes dpal-ḥbyor,<sup>428</sup> *Grub-mtha śel-gyi me-loṅ* of Rdo-tse-ḥchaṅ blo-bzai Chos-kyi ŋi-ma,<sup>429</sup> *Grub-thob brgyad-cu-rḥa-bzhi lugs-ḥjin ḥhul*,<sup>430</sup> *Grub-thob brgyad-cu-rḥa-bzhi rgyus* of Smoṅ-grub Śes-rab,<sup>431</sup> *Grub-thob brgyad-cu-rḥa-bzhi rnam-thar*,<sup>432</sup> and *Rgya-gar chos-ḥbyun* of Tāranātha.<sup>433</sup>

The thirteenth-century Tibetan monk Dharmasvāmin also wrote a biography of Nāgārjuna.<sup>434</sup>

Many references to Nāgārjuna are found in the biography of the Elder G-yu-thog yon-tan mgon-po.<sup>435</sup>

Chinese accounts of Nāgārjuna and his life are found in the records left by Chinese pilgrims who visited India<sup>436</sup>, Kumārajīva's biography,<sup>437</sup> and some other works.<sup>438</sup>

Nāgārjuna is referred to as a source on iatrochemistry in a Persian medical treatise, the *Majmū'ā-i Dīyā'ī* by Dīyā Muḥammad Mas'ūd Rashīd Zangī 'Umar Ghaznavī, who lived during the reign of Muḥammad ibn Tughluq (A.D. 1325–1351).<sup>439</sup>



## Chapter 9

### Authorities mentioned in the *Suśrutasaṃhitā*, but absent from the *Carakasaṃhitā*

Authorities mentioned in the *Suśrutasaṃhitā* are:<sup>1</sup>

- Aupadhenava Sū.1.3; 4.9.
- Aurabhra Sū.1.3; 4.9.
- Dhanvantari very often.
- Divodāsa Sū.1.3; U.66.3.
- Gopurarakṣita Sū.1.3.
- Karavīrya or Kṛtavīrya Sū.1.3; Śā.3.32.
- Kāśīpati Sū.1.41; U.18.3.
- Kāśīrāja Sū.1.3; U.40.7.
- Mārkaṇḍeya Śā.3.32.
- Pārāśarya Śā.3.32.
- Pauṣkalāvata Sū.1.3; 4.9.
- Śaunaka Śā.3.32.
- Subhūti Gautama Śā.3.32.
- Suśruta Sū.1.3 and 4.9; Ni.7.3; Ci.2.3; Ka.1.3; U.39.4 and 66.4.
- Vaitaraṇa Sū.1.3.
- Videha U.1.5.

AUPADHENAVA<sup>18</sup> is mentioned in the *Suśrutasaṃhitā* as an authority on surgery and as the author of a textbook on that subject.<sup>1</sup> The list of pupils of Divodāsa, who was Suśruta's teacher, is headed by Aupadhenava.<sup>2</sup>

References to Aupadhenava are found in Cakrapāṇidatta's *Bhānumati*,<sup>3</sup> Candrāta's *Yogarātnasamuccaya* and commentary on the *Cikitsākalikā*,<sup>4</sup> Ḍaḷhaṇa's *Nibandhasaṃgraha*,<sup>5</sup> and Hārāṇacandra's commentary on the *Suśrutasaṃhitā*.<sup>6</sup> Ṭoḍara's *Āyurveda-saukhyā* contains a quotation said to be from Aupadhenava and the *Cikitsāsārasaṃgraha*;<sup>7</sup> these verses, dealing with the transformation of rasa into rakta, etc., form, strangely enough, also part of the *Carakasaṃhitā*.<sup>8</sup>

AURABHRA<sup>9</sup> is an authority on surgery and the author of a treatise on that subject according to the *Suśrutasaṃhitā*,<sup>10</sup> which mentions him as one of the fellow pupils of Suśruta.<sup>11</sup>

Authors and works quoting from or referring to Aurabhra or Urabhra<sup>12</sup> are: Anantakumāra, the *Bhesajjanafjūsāsannaya*, Candrāta,<sup>13</sup> Ḍaḷhaṇa,<sup>14</sup> Dāmodara,<sup>15</sup> Indu,<sup>16</sup>

the *Kairālī* commentary on the Uttaraśthāna of the *Aṣṭāṅgaḥṛdayasaṃhitā*,<sup>17</sup> Narasiṃha,<sup>18</sup> Śrīdāsaṇḍita,<sup>19</sup> and Vinodalāla Sena.<sup>20</sup>

Although usually regarded as a specialist in śalya,<sup>21</sup> the quotations show that the treatise attributed to this authority comprised more than surgery; it also dealt with basic concepts,<sup>22</sup> weights and measures,<sup>23</sup> materia medica,<sup>24</sup> kāyacikitsā,<sup>25</sup> and kaumārabhṛtya.<sup>26</sup>

The disease called somaroga was known to Aurabhra.<sup>27</sup> He also described eight types of masūrikā, each of which has a particular name.<sup>28</sup> One of Anantakumāra's quotations is concerned with the aetiology and symptomatology of āma-, śarkarā- and gulmaśūla,<sup>29</sup> three types of this disease not separately characterized in the *Mādhavanidāna*.<sup>30</sup> The references to somaroga and the eight varieties of masūrikā suggest that the treatise from which they derive cannot belong to an early period and must have been distinct from Aurabhra's śalyatantra mentioned in the *Suśrutasaṃhitā*. The dialogue between Ātreya as a teacher and Urabhra as his pupil on the disease called tāṇḍavaroga, found in Vinodalāla Sena's *Āyurvedavijñāna*, proves that even late authors tried to impress their readers by ascribing verses to authorities like Ātreya and Urabhra.

GOPURARAKṢITA<sup>31</sup> or Gopura is mentioned as one of the fellow students of Suśruta in the *Suśrutasaṃhitā*.<sup>32</sup> Ḍalhaṇa refers to him as the author of a śalyatantra<sup>33</sup> and the Indian tradition still regards him as such.<sup>34</sup>

Gopurarakṣita is quoted and referred to by Nīścalakara,<sup>35</sup> Śivadāśasena,<sup>36</sup> and Ṭoḍara.<sup>37</sup> Gopura is quoted by Candrāṭa and Ṭoḍara.<sup>38</sup> A Gorakṣita, mentioned in the *Mādhavacikitsā*,<sup>39</sup> may or may not be the same as Gopurarakṣita.

Some regard Gopurarakṣita as a compound, designating two individuals, Gopura and Rakṣita,<sup>40</sup> but an authority called Rakṣita is completely unknown in āyurvedic literature, whereas both Gopura and Gopurarakṣita are quoted.

Śivadāśasena's quotation from Gopurarakṣita and one of Ṭoḍara's quotations are about the quantities of dried and fresh drugs to be used in the preparation of medicinal compounds. The quotations from Gopura in Ṭoḍara's *Āyurvedasaukhyā* are from a treatise with a much broader scope than śalya; they deal with the definition of technical terms, physiology, arīṣṭas, symptomatology, and the treatment of several diseases belonging to the realm of kāyacikitsā.

KARAVĪRYA or -vīra<sup>41</sup> is mentioned as a fellow pupil of Suśruta at the beginning of the *Suśrutasaṃhitā*. Ḍalhaṇa refers to him as the author of a śalyatantra<sup>42</sup> and he is still regarded as such in the Indian tradition.<sup>43</sup>

The *Suśrutasaṃhitā* refers to an authority called Kṛtavīrya<sup>44</sup> in the section of the third chapter of the Śārīraśthāna where a number of sages discuss which part of the embryo develops first. Kṛtavīrya advances that this part is the heart because it is the seat of buddhi and manas.<sup>45</sup> The *Carakasamhitā* attributes this view to Kāṅkāyana,<sup>46</sup> the *Bhelasamhitā* to Parāśara.<sup>47</sup>

An ancient ācārya called Karavīra is quoted by Nīścala on the treatment of a form of kuṣṭha.<sup>48</sup> A verse, dealing with the treatment of vātavyādhī, ascribed to Kārtavīrya,

is found in Ṭoḍara's *Āyurvedasaukhyā*.<sup>49</sup> Vijayarakṣita and Vacaspati quote a verse of Karavīracārya in their commentaries on the *Mādhavanidāna*.<sup>50</sup> This verse, also found in the *Āyurvedābhdhisāra*,<sup>51</sup> is about types of atisāra unsuitable for treatment. These quotations are obviously not from a treatise exclusively devoted to surgery.

G. Hāldār regards Karavīra, on account of his name, as a resident of Karavīrapura<sup>52</sup> and assigns him to the tenth or eleventh century.<sup>53</sup> Hemarājaśarman proposed the same derivation of Karavīrya's name and added as an alternative explanation that it may refer to the dexterity (vīrya) of his hands (kara) as a surgeon.<sup>54</sup>

PUṢKALĀVATA<sup>55</sup> is an ancient medical authority and the reputed author of a lost tantra on surgery (śalya).<sup>56</sup>

Authors and works quoting from or referring to Puṣkalāvata are: Anantakumāra,<sup>57</sup> Cakrapānidatta,<sup>58</sup> Candrāta,<sup>59</sup> Indu,<sup>60</sup> Gayadāsa,<sup>61</sup> the *Kairālī* commentary on the *Aṣṭāṅgahṛdayasaṃhitā*,<sup>62</sup> Niścala,<sup>63</sup> Śivadāsasena,<sup>64</sup> Śrīdāsapaṇḍita,<sup>65</sup> Suśruta,<sup>66</sup> Ṭoḍara,<sup>67</sup> and Vāgbhaṭa.<sup>68</sup>

Cakrapānidatta's *Cikitsāsāṃgraha* contains one verse taken from Puṣkalāvata.<sup>69</sup>

A medical treatise called *Pauṣkalī* is mentioned in the introductory verses of the MS of an *Ātreyaśaṃhitā*.<sup>70</sup>

The quotations<sup>71</sup> show that Puṣkalāvata's treatise was a śalyatantra, partly in verse, partly in prose, which also dealt with general subjects<sup>72</sup> and the treatment of diseases belonging to internal medicine.<sup>73</sup> Its verses were composed in a variety of metres, mixed with some prose.<sup>74</sup>

Puṣkalāvata's name refers to the ancient city of Puṣkalāvati in Gandhāra,<sup>75</sup> mentioned in the *Rāmāyaṇa*,<sup>76</sup> some Purāṇas,<sup>77</sup> and other works.<sup>78</sup> Greek authors were acquainted with the city.<sup>79</sup>

VAITARANA<sup>80</sup> is one of the fellow pupils of Suśruta.<sup>81</sup> The Indian tradition regards him therefore as the author of a treatise on surgery.<sup>82</sup>

Vaitaraṇa is quoted or referred to by Anantakumāra,<sup>83</sup> Cakrapānidatta,<sup>84</sup> Candrāta,<sup>85</sup> Ḍaḷhaṇa,<sup>86</sup> Gayadāsa,<sup>87</sup> Indu,<sup>88</sup> the author of the *Kairālī* commentary on the *Uttarasthāna* of the *Aṣṭāṅgahṛdayasaṃhitā*,<sup>89</sup> Niścalakara,<sup>90</sup> Śivadāsasena,<sup>91</sup> Śrīdāsapaṇḍita,<sup>92</sup> Śrīkaṇṭhadatta,<sup>93</sup> Ṭoḍara,<sup>94</sup> and Vāgbhaṭa.<sup>95</sup>

Cakrapānidatta incorporated a verse of Vaitaraṇa in his *Cikitsāsāṃgraha*.<sup>96</sup>

Vaitaraṇa is also known in Buddhist literature. The *Ayoghara jātika* (Nr. 510) mentions him as Vetaṛaṇi, together with Dhanvantari and Bhoja, as a toxicologist. The *Vī-suddhimagga* refers to him as a medical authority in general.<sup>97</sup>

The quotations are from a treatise that was not exclusively devoted to surgery. It also dealt with general principles of medicine,<sup>98</sup> general methods of treatment,<sup>99</sup> internal medicine,<sup>100</sup> śālākya,<sup>101</sup> and toxicology.<sup>102</sup> A particular type of kṣārabasti is called after Vaitaraṇa.<sup>103</sup>

## Chapter 10

### Commentaries on the *Suśrutasamhitā*

AMITAPRABHA. The single reference to an author of this name in Ḍalhaṇa's *Nibandhasaṃgraha* need not imply that he wrote a commentary on the *Suśrutasamhitā*.<sup>1</sup>

ARUṆADATTA is credited with a commentary on the *Suśrutasamhitā*.<sup>2</sup>

BAKULA may have written a commentary on the *Suśrutasamhitā*.<sup>3</sup>

BHĀSKARA was the author of a *PAÑJIKĀ* on the *Suśrutasamhitā*,<sup>4</sup> as indicated by Ḍalhaṇa in the introduction to his *Nibandhasaṃgraha*, where he states to have made use of this work in composing his own commentary. Ḍalhaṇa, however, never quotes Bhāskara by name,<sup>5</sup> but refers to the views of the Pañjikākāra and the *Pañjikā*, who may or may not be Bhāskara and his work, since two commentaries called thus were consulted by Ḍalhaṇa, the one written by Gayadāsa, the other one by Bhāskara. Only in the instances where Ḍalhaṇa mentions that the two Pañjikākāras agree on a particular point, is it possible to be sure that Gayadāsa and Bhāskara are meant, but it is difficult to determine whom he had in mind when he quotes the *Pañjikā* or Pañjikākāra and the commentaries called *Brhat-*, *Mahā-*, and *Laghupañjikā*. The *Brhat-* or *Mahāpañjikā* is usually assumed to be Gayadāsa's commentary, probably because those parts which have been preserved show it to be an extensive work, and presumably too because of Gayadāsa's position as Ḍalhaṇa's chief authority. Convincing evidence on this point is not available. A hint pointing to Gayadāsa as the author of the *Brhat-* or *Mahāpañjikā* may be that Gayadāsa's name precedes that of Bhāskara in the introduction to the *Nibandhasaṃgraha*.

In a single instance, the Pañjikākāra and the *Pañjikā* of the *Nibandhasaṃgraha* can be identified as Gayadāsa and his work on account of a quotation, attributed by Ḍalhaṇa to the Pañjikākāra, that agrees with a statement of Gayadāsa.<sup>6</sup>

The *Laghupañjikā* is quoted once, together with the *Brhatpañjikā*.<sup>7</sup> The two Pañjikākāras are quoted three times by Ḍalhaṇa.<sup>8</sup>

A medical authority called Bhāskara is referred to in Akalaṅka's *Vidyāvinoda*, Mādhava Kavirāja's *Mugdhabodha*, Mādhava Upādhyāya's *Āyurvedaprakāśa*,<sup>9</sup> and in the Nāsīrasāhī *Kaṅkāliṅgrantha*. The identity of the commentator with this Bhāskara or one of these Bhāskaras is unlikely.

Bhāskara is a name associated with the medical science in various works. In some cases, for example in the *Jñānabhāskara*, he may be the same as Sūrya, the sun god. The *Brahmavaivartapurāṇa* mentions him as the author of a medical *Bhāskarasaṃhitā*

and the teacher of sixteen pupils, each of whom composed an āyurvedic treatise.<sup>10</sup> This tradition is reflected in the *Bṛhannighaṇṭurātñākara*, a work that admits Bhāskara in a list of eighteen saṃhitākāras.<sup>11</sup>

Recipes attributed to a Bhāskara occur sporadically in medical treatises.<sup>12</sup> Some texts ascribe rasayogas to him<sup>13</sup> and regard him as one of the Rasasiddhas.<sup>14</sup>

Several historical personalities of medical repute called Bhāskara are known. Keśava, the father of Vopadeva and the author of the *Siddhamantra*, clearly states to have received his medical knowledge from Bhāskara. The grandfather of Śārṅgadeva, who composed the *Saṃgītaratñākara* and was also well versed in āyurveda, was called Bhāskara. P.V. Sharma assumes that this Bhāskara was the father and teacher of Soḍhala.<sup>15</sup> P.V. Sharma also interprets the first verse of the *Yogaratanmālā* attributed to Nāgārjuna as a eulogy of a guru called Bhāskara.

Evidence concerning the identity of one of these Bhāskaras with the commentator on the *Suśrutasaṃhitā* is not available.<sup>16</sup> The chronological positions of Keśava and Śārṅgadeva speak against it, while the name of Soḍhala's father is disputed.

The date of the pañjikākāra Bhāskara can only approximately be established. Some references by Ḍalhaṇa show that he is later than Bhaṭṭāraharicandra and Jejjāṭa<sup>17</sup>, and probably earlier than Brahmadeva.<sup>18</sup> The close association of Gayadāsa and Bhāskara in Ḍalhaṇa's *Nibandhasaṃgraha* may indicate that both commentators belong to the same period. These data are in favour of placing Bhāskara in the period between A.D. 700 and 1050, most probably in the tenth or the first half of the eleventh century.<sup>19</sup>

BRAHMADEVA's<sup>20</sup> commentary on the *Suśrutasaṃhitā* was one of Ḍalhaṇa's sources, as explicitly stated in the introduction to his *Nibandhasaṃgraha*, where Mādhava and Brahmadeva are mentioned as authors of a ṭippaṇa on the *Suśrutasaṃhitā*.

The medical author called Brahmadeva is quoted or referred to by Cakrapāṇidatta,<sup>21</sup> Ḍalhaṇa,<sup>22</sup> Hemādri,<sup>23</sup> Kṛṣṇadatta in his commentary on Trimalla's *Śataśloka*, Śivadāsaśena,<sup>24</sup> and Śrīkaṇṭhadatta.<sup>25</sup>

Brahmadeva may also have written a commentary on the *Carakasamhitā*.<sup>26</sup>

The numerous references to Brahmadeva in the *Vyākhyākusumāvalī* on the *Siddha-yoga* induced P.K. Gode, who overlooked the majority of Ḍalhaṇa's quotations and references, to write an article in which he supposed Brahmadeva to be the author of a commentary on the *Siddhayoga*,<sup>27</sup> but a closer look at the data reveals that such a commentary never existed. More than half of the quotations from Brahmadeva in the *Kusumāvalī* are also found in Ḍalhaṇa's commentary, usually without specification of their origin, which warrants the conclusion that they derive from Brahmadeva's commentary on the *Suśrutasaṃhitā*.<sup>28</sup> This conclusion is corroborated by the fact that the *Kusumāvalī* quotes Brahmadeva on verses which are for the larger part taken from the *Suśrutasaṃhitā*.

Brahmadeva's views were at variance or in agreement with those of predecessors like Bhāsadatta, Svāmīdāsa, Āṣāḍhavarman,<sup>30</sup> Suvīra,<sup>31</sup> Jejjāṭa,<sup>32</sup> Bhāskara,<sup>33</sup> and Gayadāsa.<sup>34</sup> Videha is an authority quoted with approval by Brahmadeva.<sup>35</sup> Ḍalhaṇa's attitude toward him varies from acceptance<sup>36</sup> to rejection.<sup>37</sup> Valuable are the variants of the text of the *Suśrutasaṃhitā*, as read by Brahmadeva, which are preserved in the

*Nibandhasaṃgraha*.<sup>38</sup>

Contributions of Brahmadeva to medical knowledge are: definitions of the actions of drugs called grāhin and stambhana,<sup>39</sup> a classification of the types of ākṣepaka,<sup>40</sup> the acceptance of forty-eight kṣudrarogas<sup>41</sup> and eleven śīrorogas,<sup>42</sup> a definition of rasāyana,<sup>43</sup> and the distinction of three types of vājīkaraṇa.<sup>44</sup> He had his own opinions on the identity of medicinal substances<sup>45</sup> and was obviously acquainted with plants from foreign countries.<sup>46</sup>

Brahmadeva's commentary was in prose, but contained some verse too,<sup>47</sup> probably quoted from earlier works.

The identity of the commentator Brahmadeva has been discussed by A.F.R. Hoernle,<sup>48</sup> who suggested that he might be the same as Śrībrahma, the father of the Maheśvara who wrote the *Viśvaprakāśa* and a lost *Sāhasāṅkacarita*.<sup>49</sup> Since Maheśvara composed his *Viśvaprakāśa* in 1111/1112, his father must have lived about 1080. As will be demonstrated, this date does not agree with Brahmadeva's chronological position.<sup>50</sup>

Brahmadeva's terminus ad quem can be deduced from Cakrapāṇidatta's reference to him. The terminus post quem presents more difficulties. Brahmadeva is posterior to Jejjāta, as clearly stated by Ḍalhaṇa,<sup>51</sup> which means that he is later than the seventh or eighth century. Ḍalhaṇa also seems to indicate that the Pañjikākāras Bhāskara and Gayadāsa antedated him.<sup>52</sup> This is corroborated with regard to Gayadāsa by a remark in the *Nibandhasaṃgraha*, claiming that Brahmadeva follows Gayadāsa in regarding a particular verse of the *Suśrutasaṃhitā* as unauthentic.<sup>53</sup> These two statements may in my opinion be accepted as proofs demonstrating that Gayadāsa preceded Brahmadeva, though A.F.R. Hoernle, who already noticed Ḍalhaṇa's second remark in 1906,<sup>54</sup> remained cautious with regard to the chronological implication. The evidence, taken together, establishes that Brahmadeva is later than Gayadāsa (about A.D. 1000) and earlier than Cakrapāṇidatta (about A.D. 1060).<sup>55</sup>

CAKRAPĀṆIDATTA<sup>56</sup> wrote a commentary, called *Bhānumatī*, on the *Suśrutasaṃhitā*; the part of this commentary that deals with the Sūtrasthāna has been preserved.<sup>57</sup>

Authorities and works quoted or referred to in it are: Āgama (1.16; 21.9; 24.8, etc),<sup>58</sup> Apūracitta (6.9), Aupadhenava (1.3 and 12–13; 4.9; 6.5), bauddhāḥ (1.6–7), Bhāluki (2.3; 6.5; 8.5, twice), Bhaṭṭa (1.16; 40.13–14),<sup>59</sup> Bhaṭṭāraharicandra (1.1–2; 6.12), Bhela (15.19; 37.9), Bhoja (1.6–7; 6.5; 8.6–7, six quotations; 11. 12–13, twice; 14.5 and 20; 15.37–38; 16.1–2, 3–5, 15; 18.18; 19.32–37; 21.9; 22.9–10; 25.27–28; 27.12; 36.7–8; 45.61cd–63, 134–140ab, 197cd–198ab), Caraka (passim),<sup>60</sup> dākṣiṇātyāḥ (16.27–32), Dhanvantari (1.1–2, 3–4, 6–7; 40.11–12), Dr̥ḍhabala (1.25; 6.10), *Gītā* (1.1–2), Hārīta (1.29; 2.3; 14.10; 32.4, twice; 45.21 and 157cd–158; 46.12–14), *Harivaṃśa* (1.1–2), Jatūkarma (1.1–2, twice; 45.21), *jyotiṣśāstra* (2.4; 16.3–5), *jyotiṣśāstra* (16.3), Kapila (6.12), Kārttikakunḍa (35.18), Kāśīrāja (1.3–4), Kaśyapa (11.15), Kāśyapa (12.7), *Kāśyapīya* (6.9 and 10), Kṣārapāṇi (31.17–29), *Kumāratantra* (16.3–5), Nandin (44.26cd–27), *Nighaṇṭu* (11.11–13),<sup>61</sup> *Nimittagrantha* (29.27–40), *nimittāśāstra* (29.41–45), Pārāśara (14.16), Puṣkalāvata (14.4–5), *Sāmkhya* (1.16; 14.18; 24.4 and 8), *Smṛti* (1.1–2), tīrthikadarśana (1.6–7), Vācaspatiśāstra's *Sām-*

*khyatattvakaumudī* (1.16), Vāgbhaṭa (14.5). *Vaiśeṣika* (6.3), Vaitaraṇa (18.13–15 and 17–18), Varāha (44.26cd–27), *vāstuvidyā* (20.23–29), and Viśvāmitra (1.1–2; 11.11–13; 11.15, twice; 11.19–25; 14.14–15; 26.8; 45.21). Remarkable is the absence of quotations from Jejjāta and Gayadāsa.

Cakrapāṇi quotes anonymously Kātyāyana's *Vārttika* (1.15), the *Mahābhāṣya* (1.1–2), *Manusmṛti* (1.22), *Nyāya* (e.g., 1.16), Pāṇini (1.1–2, 6–7, 15; 6.1–2 and 3, etc.), and the *Vaiśeṣikasūtras* (Sū.1.1–2).

The question whether the *Bhānumatī* covered the whole of the *Suśrutasaṃhitā* or part of it is clarified by the quotations which are said to derive from it and by a close scrutiny of quotations from Cakrapāṇidatta.<sup>62</sup>

The *Bhānumatī* is quoted by Āḍhamalla,<sup>63</sup> Aghoranātha in the commentary on his *Bhīṣaksarvasva*, Gopāladāsa in his *Cikitsāsmṛta*, Nīścalakara,<sup>64</sup> and Śivadāsasena.<sup>65</sup>

Many quotations found in Nīścala's *Ratnaprabhā* are from the *Bhānumatī* on the *Cikitsāsthāna* and *Uttaratantra*.<sup>66</sup>

One of the quotations by Śivadāsasena<sup>67</sup> confirms that Cakrapāṇidatta commented on the *Cikitsāsthāna*. Another quotation warrants the same conclusion, since it is concerned with the identity of a plant not mentioned in the *Sūtrasthāna*, but only in the *Cikitsāsthāna*.<sup>68</sup>

A number of quotations ascribed to Cakra, in particular among those found in Nīścala's *Ratnaprabhā*, are also from the *Bhānumatī*. One quotation from Cakra<sup>69</sup> must be derived from his commentary on the *Nidānasthāna*, because it deals with the definition of a disease described in that section of the *Suśrutasaṃhitā* and absent from the *Carakasamhitā*. A.F.R. Hoernle<sup>70</sup> indicated some quotations from Cakra that may be from the *Bhānumatī* on the *Cikitsāsthāna*.<sup>71</sup> The same author suggested that a quotation from Cakrapāṇi in the *Nibandhasamgraha*<sup>72</sup> was taken from the commentary on the *Uttaratantra*. This suggestion is confirmed by Śivadāsasena,<sup>73</sup> who states that this remark of Cakra is found in the *Bhānumatī*.

These data indicate that Cakrapāṇidatta's commentary on the *Suśrutasaṃhitā* covered the whole treatise,<sup>74</sup> which explains that its author was not only called Carakacaturāṇana but also *Suśrutasaḥsranayana*.<sup>75</sup>

The *Bhānumatī* is an extensive commentary, of the same character as the *Āyurvedadīpikā* on the *Carakasamhitā*. One of the features which makes it very valuable consists of its references to the text of the *Suśrutasaṃhitā* as read by Cakrapāṇidatta, and to variants adopted by others.<sup>76</sup>

The remarks by Cakrapāṇidatta regarding the identity of medicinal plants have been collected by Bāpāl Vaidya.<sup>77</sup>

CANDANA, quoted by Nīścalakara, may be the author of a commentary on the *Suśrutasaṃhitā*.<sup>78</sup>

The CANDRIKĀ, only known from quotations,<sup>79</sup> is in many cases either a commentary on the *Suśrutasaṃhitā* that has not been preserved or identical with Gayadāsa's *Nyāyacandrikā*.<sup>80</sup>

The majority of the quotations from the *Candrikā* and its author, the Candrikākāra

or -kṛt, in Niścala's *Ratnaprabhā* on the *Cakradatta*<sup>81</sup> are from a commentary on the *Suśrutasaṃhitā*. The author of this *Candrikā* is, as indicated by the citations, later than *Sūvira* and Jejjata,<sup>82</sup> and earlier than *Cakrapāṇidatta*<sup>83</sup> and *Bakula*.<sup>84</sup> The opinions of the *Candrikākāra* conflicted with those of *Kārttika*.<sup>85</sup>

The *Candrikā* quotes a *Nighaṇṭu*<sup>86</sup> and refers to an interpretation of the *dākṣiṇātyāḥ*<sup>87</sup> on subjects dealt with in the *Suśrutasaṃhitā*.

The *Candrikā* was one of the sources of *Dalhaṇa*'s *Nibandhasaṃgraha*.<sup>88</sup>

The *Candrikā* profusely quoted as an important commentary by Niścala cannot be but *Gayadāsa*'s commentary on the *Suśrutasaṃhitā*. An incontrovertible fact in support of this conclusion is the identity of the contents of a quotation from the *Candrikā* in Niścala's *Ratnaprabhā* with an opinion of *Gayin* cited in the *Kusumāvalī*.<sup>89</sup>

One single quotation from a *Candrikāsaṃgraha* in Niścala's commentary on the *Cakradatta* is in verse.<sup>90</sup> The nature of this work is unknown.

*DALHAṆA*<sup>91</sup> wrote a commentary, called *Nibandhasaṃgraha*,<sup>92</sup> on the *Suśrutasaṃhitā*.<sup>93</sup>

Sources and authorities mentioned in this commentary are: *Abhidhāna* (U.55.4), *Agniśāstra* (Ci.38.3–6; U.1.4cd–8ab; 39.5cd–7), *Ālambāyana* (Ka.7.7; 8.24cd–25ab, twice);<sup>94</sup> 8.83–84 and 120), *Amarakoṣa* (Ka.1.4–6), *Amitaprabha* (Ci.24.83), *anyasāstra* (Sū.4.6; U.65.34),<sup>95</sup> *Aruṇa* (Ka.1.30), *Atharvaveda* (Ci.27.8–10; 28.9–13), *atharvavidāḥ* (Ci.27.8–10), *Aupadhenava* (Sū.1.3; 4.9; U.39.5cd–7), *Aurabhra* (U.39.5cd–7), *Bandhaka* (U.1.4cd–8ab), *Bhadraśaunaka* (Sū.12.4; U.1.4cd–8ab), *Bhāluki* (Sū.13.8, twice; Ci.37.117cd–123ab; U.39.45cd–46ab), *Bhāskara* (introduction), *Bhaṭṭāra(ka)haricandra* (Sū.21.38; 46.141–142), *Bheḍa* (Sū.33.19; U.1.4cd–8ab; 39.5cd–7), *Bhoja*,<sup>96</sup> *Brahmadeva*,<sup>97</sup> *Brhāllaghupañjikāḥ* (Sū.45.157), *Brhatpañjikākāra* (U.1.4cd–8ab), *Cakrapāṇi* (U.49.19), *Cakṣuṣyena* (Ci.33.7; 40.6–9, twice), *Candranandana* (U.65.29), *Candrikākāra* (U.49.19), *dākṣiṇātyā bhiṣajāḥ* (Sū.16.32), *Dhanvantari* (Sū.1.1–2 and 3; U.40.7–8ab), *dhātuvādināḥ* (U.18.86), *Divodāsa* (U.1.3), *Dr̥ḍhabala* (Ci.37.117cd–123ab; 40.21; U.25.11cd–13ab), *Gālava* (Sū.1.3), *Gārgya* (Sū.1.3), *gauḍāḥ* (U.42.45), *Gayadāsa* (passim), *Gopurarakṣita* (Sū.1.3; 4.9), *Gūḍhapadabhaṅga(tippaṇa)* (Ci.14.10; 18.25–26, twice), *Hārīta* (Ci.38.71–76; U.1.4cd–8ab; 39.5cd–7; 40.7–8ab), *hastīśikṣā* (Ci.28.27–28), *Jamadagni* (Ci.11.11),<sup>98</sup> *Janaka* (U.1.4cd–8ab), *Jātūkarma* (Sū.45.112–113; U.1.4cd–8ab; 39.5cd–7), *Jejjata* (many times), *Jivaka* (U.1.4cd–8ab), *jyautiṣikāḥ* (Sū.6.5), *jyotiḥśāstra* (Sū.5.7; 32.4), *jyotirvidāḥ* (Sū.6.14), *kāmasāstra* (Sū.35.12), *kāmasūtrajñāḥ* (U.39.276), *kāmatantrācāryāḥ* (Ni.14.6ab), *Kāṅkāyana* (Sū.1.3), *Karāla* (U.1.4cd–8ab; 7.46), *Karavīra* (Sū.4.9), *Kārttika(kuṇḍa)*,<sup>99</sup> *Kāśirāja* (Sū.1.3; U.40.7–8ab), *Kāśyapa* (Sū.12.4; Śā.2.40; U.27.4–5), *Kāśyapīya* (U.57.9–11), *Kṛṣṇātreya* (Ci.40.51–53 and 70cd–71), *Kṣārapāṇi* (Ci.37.100cd–101; U.1.4cd–8ab; 39.5cd–7 and 42), *Kumāratantra* (Śā.3.30), *Laghuvāgbhaṭa* (Ci.14.8; 24.110–130ab), *Lakṣmaṇatippaṇa(ka)* (Sū.16.3 and 18–19; 17.11–13), *Mādhava* (introduction; Sū.15.41), *Mahāpañjikā* (Sū.45.96 and 112–113), *Nāgāṇjuna* (Sū.1.1–2; Śā.4.80; Ka.7.11cd–12),<sup>100</sup> *Nala* (Sū.46.376ab, 396cd–397ab, 449–457), *Nandin* (Ni.13.3; Ka.8.5–8ab), *nibandhāḥ* (Sū.24.5; 27.9; 45.107–111; Ni.16.65–66; U.21.19), *nibandhakārāḥ* (Sū.12.11 and 38–39; 14.18 and



21; 15.28; 46.513; Śā.4.76; Ci.9.54–64ab; U.1.14; 17.27 and 34; 21.23–26; 24.3 and 19; 25.1–4; 26.24cd; 39.71–75ab, 143cd–144, 204cd–207; 40.182cd), Nimi,<sup>101</sup> *Nyāya* (Ci.28.27–28), *Nyāyacandrikā* (Sū.27.23–27), *Pañjikā*, *Pañjikākāra*, *Pañjikākārau*,<sup>102</sup> *Parāśara* (Ci.38.3–6 and 106–111; U.1.4cd–8ab; 39.5cd–7), *paratantra* (Śā.1.22; Ci. 28.27–28),<sup>103</sup> *Parvataka* (U.1.4cd–8ab), *patañjalimatānusāriṇaḥ* (Śā.1.4), *pūrvacāryāḥ* (Śā.1.4), *rasāyanavāda* (U.40.146), *R̥gveda* (Ci.27.8–10), *Śālākya* (Sū.35.12; Ci.40. 69–70ab; U.10.4–6ab), *Śalyatantra* (U.10.4–6ab), *samānatantra* (U.45.29–33ab; 49.8; 54.33; 64.21cd–31),<sup>104</sup> *Samgraha* (Śā.4.18; Ka.1.28–34ab), *Sāṃkhyā* (Śā.1.9 and 22), *sāṃkhyāḥ* (Śā.1.16), *Sātyaki* (U.7.25–26ab; 21.9–10; 25.13cd–15ab), *saugatāḥ* (U. 61.18cd–21), *sausrutiyāḥ* (Ci.22.67cd–75), *Sāvitra* (Ka.3.5),<sup>105</sup> *Śrīpati* (Śā.1.11),<sup>106</sup> *Sudlīra* (Ci.1.24cd–27ab and 74cd–75ab; U.58.58–65ab), *Sukīra* (U.58.58–65ab), *suśrutādhyāyinaḥ* (Sū.15.28; 16.26; U.25.1–4), *Suvīra* (Ni.13.3; Ci.1.38–39; Ka.8.5–8ab), *svapnādhyāyāśāstra* (Sū.29.54cd–66), *tīkākarāḥ* (Śā.4.50 and 53–54; U.4.9cd), *Upaskāra* (U.42.54cd–55ab),<sup>107</sup> *Uśanas* (Ka.1.75cd–79ab), *Vāgbhata* (eighteen quotations), *Vaiśeṣika* (Ci.28.27–28), *Vaitaraṇa* (Ci.3.55–66; 7.30–36; U.55.51cd–52ab), *Vaṅgadatta* (Ci.3.55–66), *Varāha* or *Vārāha* (Ni.13.3; Ka.8.5–8ab), *Vaśiṣṭha* (Ka.8. 90–93), *Vātsyāyana* (Ni.14.3), *Vedānta* (Śā.1.7), *Videha*,<sup>108</sup> *Viśvāmitra* (Ni.5.17; Śā.10.68–70; Ka.8.90–93; U.18.3; 54.39cd; 58.48–49ab; 66.3–4ab), *Vṛddhabhoja* (U.41.36–39; 57.3), *Vṛddhakāśyapa* (Śā.10.57; U.58.47), *Vṛddhasuśruta* (Ci.31.8; 36.23–30ab; 37.7–14; 38.93–95; U.24.16cd–17), *vṛddhasuśrutādhyāyinaḥ* (Ci.31.8; 37.7–14; 38.93–95), *Vṛddhavāgbhata* (often), and *Vyāsa* (Sū.34.6ab–7ab).

A commentary on the *Aṣṭāṅgasamgraha* is also quoted by Ḍaḥaṇa (Śā.10.15).<sup>109</sup> A source not mentioned by Ḍaḥaṇa may be the *Madhukośa* on the *Mādhavanidāna*, which sometimes almost literally agrees with the text of the *Nibandhasaṃgraha*.<sup>110</sup> Long quotations in verse are found towards the end of Ḍaḥaṇa's work.<sup>111</sup>

Ḍaḥaṇa records a large number of variants of the text of the *Suśrutasaṃhitā*, which shows that a number of different versions existed in his time and that he consulted many manuscripts.<sup>112</sup> Variants mentioned by previous commentators, but not found in the manuscripts at his disposal, are disregarded by him.<sup>113</sup> The text of the *Suśrutasaṃhitā* regarded as authoritative by Ḍaḥaṇa does not always agree with the most current edition.<sup>114</sup> The readings of Jejjāṭa, Gayadāsa, and other commentators are quoted and discussed by him. Sometimes he remains neutral,<sup>115</sup> but on many occasions he takes sides, usually agreeing with Gayadāsa and rejecting Jejjāṭa's position.<sup>116</sup> Less frequently he sides with Jejjāṭa.<sup>117</sup> One of the commentators he obviously dislikes is Kārttikakṛṣṇa.<sup>118</sup> It rarely happens that Ḍaḥaṇa, being dissatisfied with both Jejjāṭa's and Gayadāsa's interpretation, prefers another authority.<sup>119</sup> The traditions of old and experienced physicians were held in high regard by him,<sup>120</sup> which made him also accept the judgment of his own teacher on controversial subjects.<sup>121</sup>

Ḍaḥaṇa's interpretations of the *Suśrutasaṃhitā* are valuable, but this does not mean that he is always right.<sup>122</sup>

Some noteworthy features of Ḍaḥaṇa's commentary are: Bhadrāpāda is regarded as the first month of the year;<sup>123</sup> substances used for vājīkaraṇa purposes are divided into six types;<sup>124</sup> saṃśodhana procedures are classified in a particular way;<sup>125</sup> the terms prakṛtisama- and vikṛtviśamasamavāya are interpreted in his own way;<sup>126</sup>

two types of sidhma are distinguished;<sup>127</sup> raktagulma is said to occur not only in women but also in men;<sup>128</sup> the disease called śītalikā is mentioned for the first time in Ḍalhaṇa's commentary;<sup>129</sup> prāṇāyāma is explained as being of three types, recaka, pūraka and kumbhaka;<sup>130</sup> Ḍalhaṇa approves of the boiling of honey in pharmaceutical preparations;<sup>131</sup> morphological and other characteristics of medicinal plants are described;<sup>132</sup> vernacular names,<sup>133</sup> as well as sanskritized forms of vernacular names of plants,<sup>134</sup> are given; new synonyms of plant names<sup>135</sup> and modifications in pairs of plants<sup>136</sup> are found; Ḍalhaṇa was obviously confused with regard to the identity of a number of plants.<sup>137 138</sup>

Ḍalhaṇa and his *Nibandhasaṃgraha* are quoted or referred to<sup>139</sup> in Gulrājśarma-miśra's commentary on the *Āyurvedaprakāśa*,<sup>140</sup> Hemādri's *Āyurvedarasāyana*,<sup>141</sup> Kṛṣṇadatta's commentary on Trimalla's *Śataśloki*, Nārāyaṇa's additions to the *Kusumāvalī* on the *Siddhayoga* (over ninety quotations), Śivadāśasena's commentaries on the Uttarasthāna of the *Aṣṭāṅgahṛdayasaṃhitā*,<sup>142</sup> Cakrapāṇidatta's *Dravyaguṇa*<sup>143</sup> and the *Cakradatta*,<sup>144</sup> P.V. Sharma's auto-commentaries on his *Āyurvedadarśana* and *Dravyaguṇasūtra*, Śivadatta's commentary on the *Śivakośa*,<sup>145</sup> Tōḍara in the *Āyurvedasaukhya*,<sup>146</sup> Vācaspati in his commentary on the *Mādhavanidāna*,<sup>147</sup> Vallabhabhaṭṭa's commentary on the *Jvaratrisatī*,<sup>148</sup> Yogendranātha's *Āyurvijñānaratnākara*,<sup>149</sup> and Yogīndranāthasena's commentary on the *Carakasamhitā*.<sup>150</sup>

The *Nibandhasaṃgraha* contains the following information on its author, who was not free from conceit, since he calls himself vivekabṛhaspati.<sup>151</sup> His father, a physician, who was well versed in all the sciences, was Bharata or Bharatapāla;<sup>152</sup> the names of his grandfather and great-grandfather, physicians by profession, were Jayapāla and Govinda. He issued from a family of brāhmaṇas of Sauravaṃśa<sup>153</sup> and lived in Aṅkolā, situated near Mathurā in a region called Bhādānaka. Ḍalhaṇa was associated with the court of Sahapāla or Sohala, the King of Bhādānaka.<sup>154</sup>

Aṅkolā has not been identified with certainty. In the opinion of some scholars, it was situated near Bhiwani in the Rewārī tahsīl in the old state of Ālwār, while others hold it to be the modern Bayāna in the old state of Bharatpur (Rājasthān).<sup>155</sup> Ḍalhaṇa's patron, king Sahapāla, is by some regarded as one of the kings of the Pāla dynasty of Bengal,<sup>156</sup> which would make Ḍalhaṇa into a Bengali author.<sup>157</sup>

A more appropriate candidate is, according to P.V. Sharma,<sup>158</sup> Sahanapāladeva or Sohapāla, a king of the Yadu dynasty of Biyānā (identical with Bhādānaka), a region comprising the state of Bharatpur and the district of Mathurā. This king reigned in the last quarter of the twelfth century.<sup>159</sup> Another king, called Sahajapāla, is found among the Cāhamānas of Nāḍol (Naḍḍula).<sup>160</sup>

The identity of Ḍalhaṇa's guru, whose name is not mentioned, cannot be ascertained, but P.V. Sharma inclines to the view that Bhāskara, the author of a *Pañjikā* on the *Suśrutasaṃhitā*, was this teacher, since the views expressed in the *Pañjikā* are never contradicted.<sup>161</sup>

Ḍalhaṇa quotes Cakrapāṇidatta<sup>162</sup> and Śrīpati,<sup>163</sup> and is quoted in his turn by Hemādri, which establishes that he lived in the twelfth century, probably in the latter half or last

quarter, if P.V. Sharma is right with regard to the identity of his royal patron.<sup>164 165</sup>

GADĀDHARA<sup>166</sup> was a commentator on the *Suśrutasaṃhitā*, as clearly indicated in the *Madhukośa*,<sup>167</sup> *Kusumāvalī*,<sup>168</sup> and *Ratnaprabhā*.<sup>169</sup> The larger part of the quotations from and references to him in the *Madhukośa* and *Ratnaprabhā*<sup>170</sup> are found in comments on verses taken from the *Suśrutasaṃhitā*. Gadādhara's views are repeatedly contrasted with those of other commentators on the *Suśrutasaṃhitā*.<sup>171</sup> and he is mentioned as one of a series of commentators on that treatise.<sup>172</sup>

The claim that Gadādhara also wrote a commentary on the *Carakasaṃhitā*, and, probably, as well on one of Vāgbhaṭa's works,<sup>173</sup> is not based on solid evidence. The references to Gadādhara in passages of the *Madhukośa* pertaining to verses of the *Mādhavanidāna* borrowed from Caraka or Vāgbhaṭa<sup>174</sup> do not warrant such a claim at all.<sup>175</sup>

The title of Gadādhara's commentary on the *Suśrutasaṃhitā* is unknown. Apart from this commentary, he probably wrote a treatise called *Vaidyaprasāra*.

Authors and works quoting from or referring to Gadādhara are: Āḍhamalla,<sup>176</sup> the commentary on the *Āyurvedābhdhisāra*,<sup>177</sup> Bhāvamiśra,<sup>178</sup> the *Bṛhannighaṇṭuratanākara*,<sup>179</sup> Gopāladāsa's *Cikitsāmrta*, Gulrājśarmamiśra's *Viśikhānupravesāvijñāna*, Meghadeva's commentary on the *Mādhavadravayagūṇa*, Nāganātha's *Nidānapradīpa*, Nīścalakara,<sup>180</sup> Śivadāśasena,<sup>181</sup> Śrīkaṇṭhadatta in *Vyākhyāmadhukośa*<sup>182</sup> and *Vyākhyākusumāvalī*,<sup>183</sup> Ṭoḍara,<sup>184</sup> Vācaspati,<sup>185</sup> and Vijayarakṣita.<sup>186</sup>

All these quotations are in prose, with one exception.<sup>187</sup>

Remarkable is the absence of quotations from Gadādhara in the commentaries of Cakrapāṇidatta, Ḍalhaṇa and Gayadāsa.

Some quotations, ascribed to Gadādhara by Vijayarakṣita, are attributed to Gayadāsa by Vācaspati;<sup>188</sup> the reverse situation is also found.<sup>189</sup>

The *Vaidyaprasāra*<sup>190</sup> is, once only, associated with Gadādhara in Nīścalakara's *Ratnaprabhā*.<sup>191</sup> Corroborative evidence is not available.<sup>192</sup> Quotations from Gadādhara, elsewhere said to derive from the *Vaidyaprasāra*, are absent.

The *Vaidyaprasāra* is quoted or referred to by Āḍhamalla,<sup>193</sup> Gopāladāsa,<sup>194</sup> Nīścalakara,<sup>195</sup> Śivadāśasena,<sup>196</sup> and Śrīkaṇṭhadatta.<sup>197</sup>

The quotations from this work show that it was a therapeutic treatise, partly in verse,<sup>198</sup> partly in prose, which contained recipes, along with instructions regarding their preparation.<sup>199</sup> The identity of medicinal substances mentioned in its prescriptions was occasionally explained.<sup>200</sup>

Some recipes of the *Vaidyaprasāra* may have been borrowed from Caraka,<sup>201</sup> Suśruta,<sup>202</sup> and Vāgbhaṭa.<sup>203</sup> Some are, as indicated by Nīścala, from other works (tantrāntara).<sup>204</sup> Some again differ from other versions<sup>205</sup> or agree with recipes found, for example, in Candrāṭa's *Yogaratanasamuccaya*.<sup>206</sup>

The *Vaidyaprasāra* was held in esteem, as appears from remarks by Āḍhamalla, Śivadāśasena,<sup>207</sup> and Śrīkaṇṭhadatta.<sup>208</sup>

A more definite answer on the nature and contents of the *Vaidyaprasāra* might be obtained by a study of the *Bṛhadvaidyaprasāra*, an anonymous treatise which has been preserved.<sup>209</sup>

The references to Gadādhara's views show that he sometimes preferred particular readings of the *Suśrutasaṃhitā* which differ from those found in the most current edition of that treatise and in the *Mādhavanidāna*.<sup>210</sup> The quotations mention some opinions of Gadādhara on grammar,<sup>211</sup> pathology and nosology,<sup>212</sup> and synonyms of a medicinal plant described by him.<sup>213</sup>

Vijayarakṣita sometimes disagrees with Gadādhara.<sup>214</sup> The interpretations of Gadādhara are repeatedly opposed to those of Kārttikakuṇḍa,<sup>215</sup> and once to those of Vāpyacandra.<sup>216</sup> Gadādhara and Videha, however, are said to hold similar opinions on particular points.<sup>217</sup> The same applies to Gadādhara and Jejjāṭa,<sup>218</sup> Gadādhara and Cakra.<sup>219</sup>

D.Ch. Bhattacharyya regarded Gadādhara as a physician who belonged to the Dāsa family of Vaidyas of Bengal on the basis of a remark of Niścalakara, who calls him once Gadādharaḍāsa.<sup>220</sup> The same passage refers to him as an antaraṅga, which would mean that he was the court physician of some king or at least belonged to the inner circle of some royal court. That Gadādhara belonged to Bengal is confirmed by his use of Bengali vernacular terms.<sup>221</sup>

An important indication with regard to Gadādhara's date is provided by Niścalakara who says that he preceded Cakrapāṇidatta.<sup>222</sup> If a list of commentators found in the *Madhukośa*<sup>223</sup> is put in a chronological order, he lived later than Jejjāṭa, and before Vāpyacandra.<sup>224</sup>

The introductory verses of the *Madhukośa* mention him after Bhaṭṭāra(haricandra) and Jejjāṭa, while Vāpyacandra and Cakrapāṇi follow him. A particular list of authors, given by Niścala, may also present them chronologically; this list<sup>225</sup> places Gadādhara after Vāgbhaṭa, Kapilabala, Ravigupta and Īśvarasena, and before Govardhana, Cakradatta and Bakulakara. Niścalakara mentions Gadādhara usually after Jejjāṭa and before Cakra.<sup>226</sup>

The information collected points to Gadādhara as an author who lived later than Jejjāṭa and earlier than Cakrapāṇidatta, probably earlier than Vāpyacandra and Īśvarasena, which means that he may be assigned to the eighth or, at the latest, the ninth century.<sup>227</sup> Stanzas ascribed to a Vaidya Gadādhara, different from the commentator, are quoted in Śrīdharadāsa's *Saduktikarṇāmṛta*, composed in A.D. 1205/1206.<sup>228</sup> Another Gadādhara, not to be confused with the commentator or the poet, was the father of Vaṅgasena.<sup>229</sup>

GAYADĀSA<sup>230</sup> was the author of a commentary (pañjikā),<sup>231</sup> called *Nyāyacandrikā*, on the *Suśrutasaṃhitā*. The numerous quotations from this work, in particular those found in Ḍaḷhaṇa's *Nibandhasaṃgraha*, prove that it covered the whole of Suśruta's treatise. In spite of the great fame of the *Nyāyacandrikā*, it has only partially been preserved. The part dealing with the Nidānasthāna is known in one manuscript<sup>232</sup> and has been edited.<sup>233</sup> The commentary on the Śārīrasthāna, also preserved in a single manuscript,<sup>234</sup> remains unedited.

Some authors assume that Gayadāsa also wrote a commentary on the *Carakasamhitā*,<sup>235</sup> which is not impossible at all, since a quotation in Niścalakara's *Ratnaprabhā* may derive from it.<sup>236</sup>

The collection of quotations from Gayadāsa's commentary on the *Suśrutasaṃhitā* poses a number of problems. The author himself is referred to under two names, Gayadāsa and Gayin. The assumption that two different commentators are at issue<sup>237</sup> is unfounded, since one and the same citation is attributed to both Gayadāsa and Gayin.<sup>238</sup> Ḍalhaṇa, who mentions the *Nyāyacandrikā* only once by name,<sup>239</sup> refers to the author as Gayadāsa and Gayin. Problematic are his references to commentaries called *Bṛhat-*,<sup>240</sup> *Mahā-*,<sup>241</sup> and *Laghupañjikā*,<sup>242</sup> a *Pañjikā*,<sup>243</sup> an author called Pañjikākara,<sup>244</sup> and two authors called the two Pañjikākāras.<sup>245</sup> The *Bṛhat-* or *Mahāpañjikā* is usually regarded as Gayadāsa's commentary<sup>246</sup> and the *Laghupañjikā* as Bhāskara's commentary on the *Suśrutasaṃhitā*.<sup>247</sup> Certainty on this point cannot be reached since the views ascribed to the author of the *Bṛhat-* or *Mahāpañjika* by Ḍalhaṇa are not found again as opinions of Gayadāsa in other commentaries. The Pañjikākāra of the *Nibandhasaṃgraha* is the same as Gayadāsa because the contents of a reference to him agree with a statement by Gayadāsa himself.<sup>248</sup>

The quotations from a commentary called *Candrikā* and its author are partly from the *Nyāyacandrikā*.<sup>249</sup>

Authors and works quoting from or referring to Gayadāsa or Gayin are: Āḍhamalla,<sup>250</sup> the *Āyurvedābhdhisāra*, Bhāvamīśra,<sup>251</sup> Ḍalhaṇa,<sup>252</sup> Gopāladāsa in his *Cikitsā-mṛta*, Hazārīlāl Sukul's commentary on the *Rasaratnasamuccaya*, Meghadeva in his commentary on the *Mādhavadravyaguṇa*,<sup>253</sup> Nāganātha in his *Nidānapradīpa*, Naraharī in his *Vāgbhaṭaśāstra*, Narasiṃha in his commentary on the *Mādhavanidāna*, Niścalakara,<sup>254</sup> Śivadāsasena,<sup>255</sup> Śrīkaṇṭhadatta,<sup>256</sup> Vācaspati,<sup>257</sup> and Vijayarakṣita.<sup>258</sup>

A Pañjikākāra is quoted in the *Kusumāvalī*.<sup>259</sup>

Gayadāsa himself quotes or refers to the following authorities and works in his commentary on the Nidānasthāna of the *Suśrutasaṃhitā*: Bhāluki (2.7; 5.17; 14.3 and 8cd–9ab), Bhoja (2.7; 3.7; 5.3, 4, 8, 16, 17; 6.15–19, 20ab, 25; 7.11–14ab; 8.10; 9.10cd–11ab, 13cd–14ab, 27cd–28ab, 34cd–38; 10.7 and 18; 11.3, 8–9, 10–12, 19–20, 21, 29; 12.6 and 9; 13.4, 6, 9–10, 12, 14, 18, 25cd–28ab, 30–31, 33–34, 41, 42, 47–50ab, 50cd–52ab, 52cd–54, 57–58, 61; 16.3, 5–12, 14–26, 27–35, 40–45, 46, 47–50, 57), Caraka (often), Ḍṛḍhabala (1.52–58), Hārīta (1.75), Jejjāta or Jaḍa (4.5; 5.8 and 16; 6.15–19 and 20ab; 7.24), *Kāśyapīya* (8.10), munayaḥ (6.24), Nāgārjuna (3.12), *Nāgārjuniya* (8.4), Nandin (6.15–19), pūrvavyākhyātaraḥ (13.24cd–25ab), śābdikāḥ (1.14cd–15), *Śālākya* (1.84), *śruti* (1.13–14ab), suśrutādhyāyinaḥ (12.9), Svāmīdāsa (6.15–19), Vaitaraṇa (13.41), Vātsyāyana (14.3), Videha (13.33–34 and 35), and Viśvāmitra (5.17; 7.3). Pāṇini and Vāgbhaṭa are quoted anonymously.

According to J. Jolly,<sup>260</sup> the commentary on the Śārīrasthāna quotes or refers to *Aśvavaidyaka*, the *Aśvins*, Bhāluki, Bharadvāja, Bhoja (often), Caraka (often), Hiranyākṣa, Jaḍa (= Jejjāta), Jātūkarna, Kāśyapa, Nārada, Suśruta, Viśvāmitra, and *Vṛddhakāśyapa*. A.F.R. Hoernle<sup>261</sup> added the following sources: Cakṣuṣya, Dhānavantari, Gotama, *Kumāratantra*, Manu, Puṣkalāvata, *Śālākyaatantra*, *Śalyasiddhānta*, Videha and *Yogaprayoga*. A cursory examination of the text of the commentary on the second chapter of the Śārīrasthāna learns that the names of Bheḍa and Janaka were overlooked by Jolly and Hoernle.

The extant parts of the text of the *Nyāyacandrikā* and the quotations from it show

that Gayadāsa often read a text different from that of the most current edition (cc). These differences are often, though not always, noticed by Ḍalhaṇa.<sup>262</sup> Gayadāsa was Ḍalhaṇa's chief authority, as appears from the numerous instances where his readings and interpretations are preferred to those of Jejjāṭa.<sup>263</sup> Gayadāsa is repeatedly said to disagree with Jejjāṭa or to reject his views,<sup>264</sup> but examples of cases where both are of one mind are also found.<sup>265</sup> Authorities, whose views were acceptable to Gayadāsa, are: Bhoja,<sup>266</sup> Hārīta,<sup>267</sup> Haricandra,<sup>268</sup> Kāśyapa,<sup>269</sup> Videha,<sup>270</sup> and Viśvāmitra.<sup>271</sup>

Śivadāsaena regarded Gayadāsa as one of the two authoritative commentators on the *Suśrutasaṃhitā*.<sup>272</sup>

Gayadāsa's commentary and the quotations from it have not yet been the subject of detailed study. Some noteworthy features are: a divergent view on pramehapīḍikāś, <sup>273</sup> bone fractures, <sup>274</sup> the number of vessels in various body parts and the vessels suitable for venesection, <sup>275</sup> the number of muscles in various body parts and the total number of muscles in females, <sup>276</sup> and the measurements of particular marmans. <sup>277</sup> Gayadāsa also had his own opinion on the identity of medicinal substances, <sup>278</sup> the way of preparing compound medicines, etc. <sup>279</sup>

Gayadāsa does not give any information about himself, but P. Cordier<sup>280</sup> noticed his being called an *antarāṅga*, i.e., a court physician, in the colophon of the MS of the *Nyāyacandrikā* on the *Nidānasthāna*.<sup>281</sup> Later, D.Ch. Bhattacharyya claimed<sup>282</sup> that Nīścalakara calls him *gauḍeśvarāntarāṅgaśrīgayadāśasena*, which means that he was a court physician to a king of Bengal; the ending -dāsa of his name would indicate that he belonged to the Dāsa lineage of Bengali Vaidyas. The edition of Nīścalakara's *Ratnaprabhā* refers to Gayadāsa as an *antarāṅga* or *gauḍāntarāṅga*,<sup>283</sup> and calls him (*vaidyaśrī*) Gayadāsa.<sup>284</sup>

For a long time it has been difficult to reach some degree of precision with regard to Gayadāsa's date. J. Jolly<sup>285</sup> only remarked that he must be earlier than Ḍalhaṇa who quotes him. A.F.R. Hoernle<sup>286</sup> regarded him as not later than the eleventh century and supposed Gayadāsa and Cakrapāṇidatta to be contemporaries. P.V. Sharma also regards Gayadāsa and Cakrapāṇidatta as belonging to the same period.<sup>287</sup> G. Hāldār assigned Gayadāsa to the tenth<sup>288</sup> or tenth-eleventh century,<sup>289</sup> and was of the opinion that he is earlier than Cakrapāṇidatta.<sup>290</sup>

The limits of Gayadāsa's chronological position are provided on the one hand by Jejjāṭa, quoted by him, and on the other by Vijayarakṣita and Śrīkaṇṭhadatta, who quote Gayadāsa. D.Ch. Bhattacharyya's contention<sup>291</sup> that Gayadāsa is cited in Cakrapāṇidatta's *Āyurvedadīpikā* is not convincing, being based on a reference to the author of a *Candrikā* on the *Suśrutasaṃhitā*,<sup>292</sup> which need not be Gayadāsa's *Nyāyacandrikā* in this case.

More light on Gayadāsa's date is shed by the chronology of Brahmadeva, who is later than Gayadāsa and anterior to Cakrapāṇidatta. This leads to the conclusion that Gayadāsa lived in the period between Jejjāṭa and Brahmadeva,<sup>293</sup> which implies that he is earlier than Cakrapāṇi.

Nīścalakara once mentions Gayadāsa between Īśāna and Cakra, which may mean

that he is regarded as later than Īśāna and earlier than Cakrapānidatta.<sup>294</sup>

D.Ch. Bhattacharyya's date of Gayadāsa, about A.D. 1000, is within this range, which means that this author's choice of Mahīpāla I (A.D. 988–1038)<sup>295</sup> as Gayadāsa's patron is not unacceptable,<sup>296</sup> although only one of a series of possibilities.<sup>297</sup>

GOMIN<sup>298</sup> was a commentator on the *Suśrutasaṃhitā*, as shown by a reference to him in the *Kusumāvalī*,<sup>299</sup> where Gomin is said to have rejected a particular interpretation, advanced by others, of a passage of the chapter on kṣārapāka of the *Suśrutasaṃhitā*. The *Kusumāvalī* calls him a commentator (ṭīkākr̥t). G.N. Mukherjee identified him with the Buddhist author Candragomin,<sup>300</sup> which is a rather improbable supposition.<sup>301</sup>

GOVARDHANA is mentioned among a series of commentators on the *Suśrutasaṃhitā* by P. Cordier<sup>302</sup> and S. Dasgupta.<sup>303</sup>

The GŪDHPADABHAṄGAṬIPPAṆA<sup>304</sup> was probably a collection of short comments on the *Suśrutasaṃhitā*. The work is quoted by Ḍaḥaṇa<sup>305</sup> and Śrīkaṇṭhadatta.<sup>306</sup> The former rejects one of the interpretations of its author on the authority of Jejjaṭa.<sup>307</sup> P.V. Sharma assumes that the work belongs to the eleventh century.<sup>308</sup>

HĀRĀṆACANDRA wrote a modern Sanskrit commentary, called *Suśrutārthasaṃdīpana*, on the *Suśrutasaṃhitā*.<sup>309</sup>

Sources quoted or referred to are: *Āgama* (Sū.10.4; 24.8; 40.10), *Āgneya* (U.4.3–8ab),<sup>310</sup> *Ajaya* (Sū.2.4; 16.10; Nī.10.10–12; Śā.4.57–61),<sup>311</sup> *Amara* (often),<sup>312</sup> *Ama-rāmālā* (Sū.1.22),<sup>313</sup> *Amaratīkā* (Sū.44.46–49ab),<sup>314</sup> *Ānandaginīkṛtā vyākhyā* (Sū.6.4),<sup>315</sup> *Ātreya* (often), *Aupadhenava* (Sū.4.9), *Bādarāyaṇa* (Śā.1.11–14; 3.4),<sup>316</sup> *Bālukītantra* (Sū.6.5),<sup>317</sup> *Bhagavadgītā* (U.37.3–9 and 11–22), *Bhāskarācārya's Siddhāntaśiromaṇi* (Sū.6.5), *Bhāṣyakāra* (Śā.9.11),<sup>318</sup> *Bhaṭṭi* (Sū.13.9; Ka.1.75ab),<sup>319</sup> *Bhoja* (Sū.6.5; 8.3–4, five quotations; 11.11; 19.30–32; 21.9; 27.12–14; Nī.13.6 and 14; 16.40–45), *Bhujabalabhīma* (Sū.29.42–45),<sup>320</sup> *Brahmasūtrabhāṣya* (Sū.40.14),<sup>321</sup> *Brahmavidyābharanākāra* (Śā.1.15–16),<sup>322</sup> *Brhadāraṇyaka* (Sū.6.4), *Brhatsaṃhitā* (Ka.1.8–18ab), *Cakrapāṇisamgraha* (Sū.46.294–297), *Devīpurāṇa* (Sū.24.6), *Dharaṇi* (Sū.3.55–56; 17.15; 26.8–10),<sup>323</sup> *Dīdhitikāra* (Sū.16.10),<sup>324</sup> *Dīpikā* (Sū.29.34–41), *Dr̥ḍhabala* (Sū.43.8–11), *Durgasiṃha* (Sū.16.10),<sup>325</sup> *Garga* (Sū.16.3–4), *Gobhila* (Sū.35.17cd–18ab), *Gobhilasūtra* (Sū.5.18),<sup>326</sup> *Gotama* (Sū.1.32–34; 2.6; 26.5–7; Śā.1.7), *Halāyudha* (Nī.6.26),<sup>327</sup> *Hārāvalī* (Sū.44.31–34),<sup>328</sup> *Hemacandra* (Sū.18.18; 30.21–23; 42.5–7; 45.3; 46.3 and 351; Śā.6.28–34ab), *Hrasva* (Sū.1.1–2; 44.14–16; 46.36), *Jaimini* (Sū.1.1–2 and 34; 2.3; Nī.6.5–8; U.23.8–12),<sup>329</sup> *Jalpakaḥpataṛu* (Sū.6.21–38),<sup>330</sup> *jyotiḥśāstra* (Sū.32.4–7), *jyotiṣa* (Sū.29.34–41; 32.4–7), *Jyotistattva* (Sū.32.4–7),<sup>331</sup> *kālacakravādinah* (Sū.6.9), *Kalāpacandra* (Sū.44.31–34; 46.340–344), *kālāpāḥ* (Ka.3.6–17),<sup>332</sup> *Kālidāsa* (U.22.12), *kāmasāstra* (Nī.14.1), *kāpilāḥ* (Śā.1.5), *Kāśikā* (Sū.30.8–12; Śā.6.24), *Kāśyapīya* (Sū.6.6–7 and 9), *Kātyāyana* (Sū.2.4–5 and 10; 30.1; U.38.31–32), *Kāvyaaprakāśa* (Sū.10.5),<sup>333</sup> *Koṣa* (Sū.26.1–3; 35.1; 38.1), *Koṣakāra* (Sū.18.17), *Koṣāntara* (ten quotations), *Kullūka* (Sū.1.28–29),<sup>334</sup> *Kusumāñjali* (Śā.1.11–14),<sup>335</sup> *Mādhava* (Sū.14.18),<sup>336</sup> *māgadhaḥ* (Sū.44.82), *Mā-*

gha (Sū.30.14cd–20), *Māghaṭikā* (Sū.3.18–26),<sup>337</sup> *Mahābhārata* (Sū.6.19; 24.7; 29.34–41; 31.3–4 and 17–24; 32.4, twice; U.4.2–8ab, three quotations), Mallinātha (Sū.3.18–26), Manu (often), *Mārkaṇḍeyapurāṇa* (Sū.1.22; 19.20–29), Mathurānātha (Sū.37.19–22), *Matsyapurāṇa* (Sū.29.27–33), Medinī (very often), *Meghadūta* (Ni.2.10–12), *Muktāvalī* (Ka.1.28–45), *Naiṣadha* (Sū.16.10; Ni.2.17–18), *Naiṣadhakāvya* (Sū.46.281–289),<sup>338</sup> *naiyāyikāḥ* (Sū.42.3), *Nyāyakandalī* (Sū.45.3–4),<sup>339</sup> *Nyāyasūtra* (Sū.16.10), Pāṇini (rather often), Parāśara (Sū.28.6–7), *Pātañjalasūtra* (Sū.28.6–7; 46.2; Śā.1.10), Prāñca (Sū.16, additional verses between 26 and 27; Ka.1.3–7), *Prasastabhāṣya* (Sū.45.3–4), *Purāṇa* (Śā.3.19–29), Rabhasa (Sū.10.9),<sup>340</sup> Raghu (Sū.24.5; U.18.27–30), Raghunandana (Sū.1.1–2),<sup>341</sup> Raghunātha's *Amaratīkā* (Sū.46.211–220),<sup>342</sup> *Rājanirghaṇṭa* (Sū.27.12–14; 31.25–32; 44.9–13; Śā.5.10; 10.6–8), *Ratnāvalī* (Ni.9.4–11ab), Rudra (Sū.28.11–21; Ni.14.3; Ka.5.1; U.37.10–22),<sup>343</sup> Śabarasaṃvāmin (Sū.1.39),<sup>344</sup> *Śabdaratnāvalī* (Sū.37.19–22), *Śabdaśaktiprakāśikā* (Sū.1.22),<sup>345</sup> Śaṃkara (Sū.1.22, twice), *Śaṃkarabhāṣya* (Sū.6.4; U.37.3–9), *Śaṃkarācārya* (Sū.40.13; 43.3), *Sāṃkhyabhāṣyakāra* (Śā.1.10),<sup>346</sup> *Sāṃkhyācārya* and *-ācāryāḥ* (Śā.1.4 and 11–14), *sāṃkhyāḥ* (Sū.21.28; 44.31–34; Ni.1.3–9; Śā.1.3, 4, 10; U.22.11–18ab), *Sāṃkhyakārikā* (Sū.24.8; 36.3; 40.5–8; Śā.1.3), *Sāṃkhyapravacanabhāṣya* (Śā.1.4),<sup>347</sup> *Sāṃkhyasūtra* (Śā.1.3), Śaṅkhalikhita (Sū.2.1),<sup>348</sup> *Śārīrakabhāṣya* (Sū.1.1–2; 20.17; Śā.1.15–16),<sup>349</sup> *Śārīrakasūtra* (Śā.1.15–16),<sup>350</sup> *Śārīrakasūtrabhāṣya* (Śā.9.3), Śiromaṇi (Sū.40.4),<sup>351</sup> *smṛti* (often), Śrīhaṭṭa (Sū.46.298),<sup>352</sup> Śrīpati (Sū.46.396cd–400ab), *śruti* (several times), *sūdasāstra* (Sū.46.353cd–356ab), *Sūryasiddhānta* (Sū.6.6–7, twice; 21.12–13; 32.4–6), *tantrāntara* (very often), tarkavidyāvidyāṃsaḥ (Sū.45.3), *Trikaṇḍa* (Sū.23.9–12; 45.7–8),<sup>353</sup> *Trikaṇḍaśeṣa* (Sū.5.18), Vācaspati (Sū.40.4), Vācaspatimiśra (Sū.21.12–13; 36.3; 40.5–9; Śā.1.4, three quotations; 1.5; 1.10, twice), Vāgbhaṭa (often), vaiśeṣikāḥ (Śā.1.15–16), vaiyākaraṇāḥ (U.17.61cd–70), Vāmana (Sū.29.27–33), *Vāmanapurāṇa* (U.37.3–9), vārendrāḥ (Sū.46.21), Vasiṣṭha (Sū.45.4), *Vāyuprokta* (Sū.29.27–33),<sup>354</sup> *Veda* (Sū.40.4), *Vedānta* (Sū.24.7; 36.4–5; 40.3; 41.3), *Vedāntasūtra* (Sū.14.18), Viśākhadatta (Ka.1.3–7),<sup>355</sup> Viṣṇu (Sū.2.1), *Viṣṇupurāṇa* (Sū.1.3–5 and 6–7; 6.3 and 5; 34.7cd–9ab; 46.3; Śā.1.4) *Viśva* (Sū.15.5),<sup>356</sup> Vopadeva (Sū.22.11), Vopālita (Sū.28.8–10),<sup>357</sup> and Yājñavalkya (Śā.5.18–19).

Some sources, especially Pāṇini's *Aṣṭādhyāyī* and the *Dhātupāṭha*, are repeatedly quoted anonymously.

The influence of Western medicine, especially its anatomy, is clearly discernible in the commentary on the Śārīrasthāna. Vernacular names of medicinal substances are often added to the Sanskrit synonyms.

Hārāṇacandra issued from a family of brāhmaṇas. He was born in a village called Bakliyā in the Pavnā district of Bengal in 1849. His father, Ānandacandra, a physician and pupil of the famous Gaṅgādhara, practised in Rājśāhī. Hārāṇacandra followed his father's example and studied āyurveda with Gaṅgādhara. He was interested in western medicine, especially anatomy, and performed dissections in order to increase his knowledge. He became a successful practitioner, especially known for his skill in the treatment of eye diseases. His daily life was that of a traditional Hindu. Hārāṇacandra was a generous person who often treated his patients without asking a fee. He died in 1935.<sup>358</sup>



JEJJAṬA<sup>359</sup> commented on both *Caraka-* and *Suśrutasamhitā*. His commentary on the latter treatise has partly been preserved,<sup>360</sup> but its title is unknown. Numerous quotations from it, about 160 in number, are found in Ḍalhaṇa's *Nibandhasaṃgraha*. The remarks of Ḍalhaṇa show that the text of the *Suśrutasamhitā*, as read by Jejjāṭa, considerably differed from the text accepted by Gayadāsa. The latter rejected Jejjāṭa's readings in the majority of the cases recorded by Ḍalhaṇa; readings acceptable to both of them are less frequently attested.<sup>361</sup> Ḍalhaṇa's attitude toward these two predecessors varies; he sides with Gayadāsa against Jejjāṭa or he remains neutral; the instances where he prefers Jejjāṭa's opinion to that of Gayadāsa are very few.<sup>362</sup>

Jejjāṭa's commentary on the *Suśrutasamhitā* is also quoted by Gayadāsa,<sup>363</sup> who calls him Jejjāṭa or Jaḍa.

Niścala's *Ratnaprabhā* on the *Cakradatta* contains a large number of quotations from Jejjāṭa. A considerable number among these are from the commentary on the *Suśrutasamhitā*.<sup>364</sup> Kārttika(kuṇḍa) is said to agree with Jejjāṭa in a number of instances.<sup>365</sup>

Remarkable is the absence of quotations from Jejjāṭa in Cakrapāṇidatta's *Bhānumatī* on the *Sūtrasthāna* of the *Suśrutasamhitā*.

Candraṭa, on the other hand, held Jejjāṭa's commentary in high esteem and consulted it when he wrote the *Suśrutapāṭhaśuddhi*.<sup>366</sup>

Quotations from Jejjāṭa in other works may be either from his commentary on the *Caraka-* or from that on the *Suśrutasamhitā*.

KĀRTTIKAKUṆḌA<sup>367</sup> was a well known and respected commentator on the *Suśrutasamhitā*.

Authors and works quoting from or referring to him are:<sup>368</sup> Āḍhamalla,<sup>369</sup> the commentary on the *Āyurvedābhisāra*,<sup>370</sup> Bhāvamiśra,<sup>371</sup> Cakrapāṇidatta,<sup>372</sup> Ḍalhaṇa,<sup>373</sup> Nāganātha in his *Nidānapradīpa*, Narahari in his *Vāgbhaṭamaṇḍana*, Niścalakara,<sup>374</sup> Śivadāsaśena,<sup>375</sup> Śrīkaṇṭhadatta,<sup>376</sup> Vācaspati,<sup>377</sup> and Vijayarakṣita.<sup>378</sup>

The quotations and references show that Kārttikakuṇḍa was a commentator with an independent mind and many views of his own, in particular with regard to the text of the *Suśrutasamhitā*.<sup>379</sup> Two of his authorities were Videha<sup>380</sup> and Vṛddhakāśyapa.<sup>381</sup> He agrees on a number of points with Jejjāṭa.<sup>382</sup> Gadādhara is an author he more than once disagrees with.<sup>383</sup> Although Kārttika was obviously an important commentator,<sup>384</sup> later writers repeatedly reject his interpretations.<sup>385</sup> Some remarks in Ḍalhaṇa's *Nibandhasaṃgraha* indicate that Kārttika's work was elaborate and detailed.<sup>386</sup>

The assertion that he also wrote commentaries on the *Carakasamhitā* and *Aṣṭaṅgaśāstrasamhitā* is unfounded.<sup>387</sup> Kārttikakuṇḍa, often shortly called Kārttika<sup>388</sup> or Kuṇḍa, may, on account of his name ending in kuṇḍa, have belonged to a Bengal family of Vaidyas.<sup>389</sup>

Hoernle's suggestion that Kārttikakuṇḍa is identical with Bhāskara, the author of a *Pañjikā* on the *Suśrutasamhitā*, has to be rejected since it is based on the assumption that Bhāskara is not quoted by Ḍalhaṇa.<sup>390</sup>

The terminus ante quem of Kārttikakuṇḍa is provided by the *Kusumāvalī*<sup>391</sup> and Nīścala's *Ratnaprabhā*,<sup>392</sup> which declare him to be anterior to Vṛnda(kuṇḍa). A remark by Śivadāsaśena<sup>393</sup> may well mean that he is earlier than Gayadāsa. Kārttikakuṇḍa's name also appears in a series of commentators on the *Suśrutasaṃhitā*, mentioned in the *Madhukośa*.<sup>394</sup> If this series, consisting of Jejjāta, Vāpyacandra, Mādhavakara and Kārttikakuṇḍa, is in chronological order, he is later than the commentator Mādhava. Some statements found in Śrīkaṇṭhadatta's part of the *Madhukośa*<sup>395</sup> seem to indicate that Gadādhara preceded him. These data, taken together, point to the eighth or, more probably, the ninth century as the period of Kārttikakuṇḍa's activity.<sup>396</sup>

The LAKṢMAṆAṬIPPAṆA,<sup>397</sup> quoted by Dalhaṇa<sup>398</sup> and Śrīkaṇṭhadatta,<sup>399</sup> must have been a collection of glosses on the *Suśrutasaṃhitā*.<sup>400</sup> Nothing more definite can be said about its date.<sup>401</sup>

MĀDHAVA's glosses on the *Suśrutasaṃhitā* are referred to as *Praśna(sahasra)vidhāna* or *Suśrutaślokaṭīkā*. He may also have written a commentary on the *Suśrutasaṃhitā* that differs from these glosses. Dalhaṇa says in the introduction to his *Nibandhasaṃgraha* that he made use of the ṭippanas of Mādhava and Brahmadeva in composing his own work.<sup>402</sup> Mādhava is once quoted by him.<sup>403</sup>

MAHĀDEVA is the reputed author of a *Suśrutāṭīkā*.<sup>404</sup>

NĀGADEVA was a commentator on the *Suśrutasaṃhitā*, as appears from a reference to him in Nīścala's *Ratnaprabhā*.<sup>405</sup> P.V. Sharma regards Nāgadeva as a commentator on the *Carakasamhitā* and as the author of the *Nāgabhartṛtantra*; he assigns him to the twelfth century.<sup>406</sup>

NANDIN was an early commentator on the *Suśrutasaṃhitā*,<sup>407</sup> as is shown by Dalhaṇa's references to him. Nandin was averse to the inclusion of the diseases gardabhikā, irivellikā, gandhapidikā and nīlikā in the list of the kṣudrarogas.<sup>408</sup> He refrained from giving information on the insects and other invertebrates enumerated in the *Suśrutasaṃhitā*.<sup>409</sup> In both cases he is mentioned together with Suvīra and Varāha. Both references relate to Nandin's commentary on the *Suśrutasaṃhitā*, since a list of kṣudrarogas and an enumeration of harmful small animals are absent from the *Carakasamhitā*. Cakrapāṇidatta mentions him also, together with Varāha, as a commentator on the *Suśrutasaṃhitā*.<sup>410</sup> Gayadāsa's *Nyāyacandrikā* proves that Nandin also commented on the *Carakasamhitā*.<sup>411</sup> Gayadāsa mentions him as such, along with Svāmīdāsa and Jaḍa.

Nandin obviously belonged, together with Suvīra and Varāha, to a group of early commentators who preceded Jejjāta and Gayadāsa. He is sometimes placed in the eleventh century,<sup>412</sup> but must be earlier, since Jejjāta belongs to the seventh or eighth century.

Authorities called Nandin are also known from texts on nāḍī- and rasaśāstra.<sup>413</sup>

PURUṢOTTAMASŪRI is recorded as the author of a commentary (vyākhyā) on the *Suśrutasaṃhitā*.<sup>414</sup>

RĀMADEVA<sup>415</sup> is quoted as a commentator on the *Suśrutasaṃhitā* by Nīścalakara,<sup>416</sup> who remarks that Rāmadeva and Jejjāta agree on the correct reading of a particular verse of Suśruta.<sup>417</sup> Rāmadeva is therefore earlier than Nīścala. The reference to him in the company of Jejjāta may imply that he is of about the same period. Some regard him, without adducing arguments, as belonging to the twelfth century.<sup>418</sup>

SOMA was a commentator on the *Suśrutasaṃhitā* according to P. Cordier<sup>419</sup> and S. Dasgupta.<sup>420</sup> This view is corroborated by the quotations from the *Somaṭippaṇa* in the *Kusumāvalī* on the *Siddhayoga*.<sup>421</sup>

SUDHĪRA<sup>422</sup> is a commentator who is quoted or referred to by Candrāṭa,<sup>423</sup> Ḍalhaṇa,<sup>424</sup> Nīścalakara,<sup>425</sup> and Vijayarakṣita.<sup>426</sup> The *Bṛhannighaṇṭuratanākara* mentions him as one of a series of commentators.<sup>427</sup>

Candrāṭa refers to him as a commentator of the same rank as Haricandra and Jejjāta. The quotations and references by Ḍalhaṇa prove that Sudhīra commented on the whole of the *Suśrutasaṃhitā*, the Uttaratantṛa included. Some assume that he also commented on the *Carakasamhitā*.<sup>428</sup> Ḍalhaṇa had regard for Sudhīra's opinion and does not make a stand against him, even when Gayadāsa disagrees. Jejjāta's views clashed with those held by Sudhīra. On one occasion, Ḍalhaṇa states that Sukīra and Sudhīra held the same view on a particular point and supported a variant reading of Kārttikakuṇḍa. Sukīra and Sudhīra are also mentioned together by Vijayarakṣita.

Sudhīra may have been an early commentator, since Ḍalhaṇa remarks that Jejjāta and Gayadāsa did not accept one of his interpretations. He is earlier than Candrāṭa (tenth century), who refers to him as a famous commentator. Some regard him as belonging to the ninth century,<sup>429</sup> others place him in the ninth or tenth century.<sup>430</sup> In my opinion he must be earlier, since Jejjāta, disagreeing with Sudhīra, is obviously posterior to him.

SUKĪRA<sup>431</sup> was a commentator on the *Suśrutasaṃhitā*, as appears from a reference to him found in Ḍalhaṇa's *Nibandhasaṃgraha*.<sup>432</sup> Ḍalhaṇa mentions him together with Sudhīra and other commentators whose opinion he esteemed. Vijayarakṣita included the names of Sukīra and Sudhīra in the list of authorities found in the introductory verses of the *Mādhukośa*.<sup>433</sup>

Sukīra may have lived in the same age as Sudhīra. Some assign him to the ninth or tenth,<sup>434</sup> others to the eleventh<sup>435</sup> or twelfth century.<sup>436</sup>

G. Hāldār regards Sukīra, quite unfoundedly, as an author who commented on the *Mādhavanidāna*.<sup>437</sup>

SUVĪRA<sup>438</sup> was a commentator on the *Suśrutasaṃhitā*, as is evident from Ḍalhaṇa's references to him. Ḍalhaṇa says that information on the insects and other invertebrates mentioned by name in the *Suśrutasaṃhitā* should be collected in the countries where

these animals are found, since commentators like Suvīra, Nandin, Vārāha, Jejjāta and Gayadāsa are silent on this subject.<sup>439</sup> The four diseases called *gardabhīkā*, *irivellikā*, *gandhapīḍikā* and *nīlikā* do not belong to the group of *kṣudrarogas* according to Suvīra, Nandin, Vārāha and others, as stated by Ḍaḷhaṇa.<sup>440</sup> On a third occasion he refers to a particular classification of the types of *lekhaṇa*, shared by Suvīra, Jejjāta and Brahmadeva.<sup>441</sup>

Niścalakara remarks that a particular detailed explanation by Suvīra and Jejjāta is not accepted by the Candrikākāra.<sup>442</sup>

The evidence available indicates that Suvīra, together with Nandin and Vārāha, belongs to a group of early commentators on the *Suśrutasaṃhitā*. Ḍaḷhaṇa's and Niścalakara's references show that he is anterior to Jejjāta, Brahmadeva and Gayadāsa. Those regarding the Candrikākāra mentioned by Niścalakara as identical with Gayadāsa assign Suvīra to the tenth<sup>443</sup> or eleventh century.<sup>444</sup>

UBHALTA, a resident of Kaśmīr, is mentioned as the author of a commentary on the *Suśrutasaṃhitā* by G. Mukhopadhyaya.<sup>445</sup> This Ubhalla is undoubtedly the same as Ubhatta, an inhabitant of Kaśmīr, regarded as a commentator of the twelfth or thirteenth century on the *Suśrutasaṃhitā* by H.H. Wilson<sup>446</sup> and T.A. Wise.<sup>447</sup> P. Cordier considered this Ubhatta to be the same as Vāgbhaṭa, who passed for a commentator or epitomizer of *Suśruta*.<sup>448</sup>

The reference to Kaśmīr as Ubhatta's country of residence is due to his, erroneous, identification with Udbhaṭa or Bhaṭṭodbhaṭa, who was the *sabhāpati* of king Jayāpīḍa of Kaśmīr (779–813).<sup>449</sup>

UPASKĀRA. A work of this title,<sup>450</sup> quoted by Ḍaḷhaṇa,<sup>451</sup> may be a commentary on the *Suśrutasaṃhitā*. An authority on surgery, referred to as *Upaskāra*, is cited in the *Kusumāvalī*.<sup>452</sup>

VAṄGADATTA,<sup>453</sup> an authority quoted by Ḍaḷhaṇa,<sup>454</sup> may have been a commentator on the *Suśrutasaṃhitā*. His interpretation of a particular recipe differs from those given by Jejjāta and Gayadāsa. P.V. Sharma<sup>455</sup> places him in the eleventh century, although his date is quite uncertain.

G. Hāldār regards Vaṅgasena, the author of the *Cikitsāsārasaṃgraha*, who is often referred to as Vaṅgadatta, as a commentator on the *Caraka-* and *Suśrutasaṃhitā*.<sup>456</sup>

VĀPYACANDRA may have written a commentary on the *Suśrutasaṃhitā*.<sup>457</sup>

VARĀHA or VĀRĀHA<sup>458</sup> was an early commentator on the *Suśrutasaṃhitā*, as indicated by Ḍaḷhaṇa.<sup>459</sup> Varāha rejected the four diseases called *gardabhīkā*, *irivellikā*, *gandhapīḍikā* and *nīlikā* as members of the group of *kṣudrarogas* and did not give additional information on a series of harmful insects and other small animals mentioned by *Suśruta*. Ḍaḷhaṇa refers to him together with Suvīra and Nandin.

Calapāṇidatta mentions him also, together with Nandin, as a commentator on the *Suśrutasaṃhitā*.<sup>460</sup> Varāha is sometimes said to belong to the eleventh century,<sup>461</sup> but

must be earlier since he preceded Jejjāta.<sup>462</sup>

A medical samhitā by Vārāha is mentioned in the *Bṛhannighaṇṭuratanākara*.<sup>463</sup>

A hippiatric treatise, called *Śālīhotra*, by an author Vārāha, is also recorded.<sup>464</sup>

VIPRAṆḌĀCĀRYA is occasionally mentioned as a commentator on the *Suśrutasamhitā*,<sup>465</sup> which may be based on a confusion with Vāpyacandra.

ANONYMOUS COMMENTARIES are recorded in the MSS catalogues.<sup>466</sup>



Part 3

Aṣṭāṅgahr̥dayasaṃhitā





## Chapter 1 Sūtrasthāna<sup>1</sup>

The *Aṣṭāṅgahrdayasaṃhitā* opens with a maṅgala addressed to the Apūrvavaidya, who destroyed all the diseases, consisting of passion (rāga), etc., which give rise to desire (autsukya), delusion (moha) and distress (arati) (1.1).

Chapter one (āyushkāmiṃya)<sup>2</sup> begins with the transmission of āyurveda: Brahmā gave the science to Prajāpati, who gave it to the Aśvins; the Aśvins transmitted it to Sa-hasrākṣa (= Indra), who taught it to the son of Atri and other sages; these sages instructed Agniveśa and others, who composed treatises on the subject (1.3–4ab).<sup>3</sup> The *Aṣṭāṅgahrdaya* is said to be based on the essence of these treatises (1.4cd–5ab).

The subjects of chapter one are: the eight divisions of āyurveda: kāya, bāla,<sup>4</sup> graha,<sup>5</sup> ūrdhvāṅga,<sup>6</sup> śalya, daṃṣṭrā,<sup>7</sup> jarā,<sup>8</sup> and vṛṣa<sup>9</sup> (1.5cd–6ab);<sup>10</sup> the three doṣas (1.6cd–7ab); the main seats of the doṣas (1.7cd); the stages of life, periods of day and night, and stages of the digestive process in which one of the doṣas is predominantly active (1.8ab); the four types of digestive fire (1.8cd); the krūra, mṛdu and madhya types of koṣṭha (1.9ab); the constitutions (prakṛti) (1.9cd–10); the normal qualities of vāta (1.11ab),<sup>11</sup> pitta (1.11cd)<sup>12</sup> and kapha (1.12ab);<sup>13</sup> combinations of two doṣas (saṃsarga) and three doṣas (saṃnipāta) (1.12cd); the seven bodily elements (dhātu), also called dūṣyas (1.13ab); urine, faeces and sweat are called mala (1.13cd); similar (samāna) substances, etc., cause increase (vṛddhi) (of doṣas, dhātus and malas), dissimilar ones decrease (1.14ab); the six tastes and their actions on the doṣas (1.14cd–16ab);<sup>14</sup> the three types of substances: śamana (alleviating), kopana (aggravating) and svasthahita (maintaining health) (1.16cd); the two types of vīrya: uṣṇa and śīta (1.17ab);<sup>15</sup> the three types of vipāka: svādu, amla and kaṭuka (1.17cd);<sup>16</sup> the twenty qualities (guṇa), which consist of guru, manda, hima, snigdha, ślakṣṇa, sāndra, mṛdu, sthira, sūkṣma, and viśada, along with their opposites (1.18);<sup>17</sup> diseases are essentially caused by defective, improper and excessive contact (yoga) with time, the objects of the senses, and activities; proper contact is the main cause of health (1.19);<sup>18</sup> disease is equivalent to imbalance of the doṣas, health to their balance (1.20ab); diseases are either endogenous (nija) or exogenous (āgantū) (1.20cd); the basic seats of disease are body and mind (1.21ab); rajas and tamas are the doṣas affecting the mind (1.21cd); a patient should be examined by means of inspection (darśana), palpation (sparśana) and interrogation (praśna) (1.22ab); nidāna (aetiology), prāgrūpa (prodromes), lakṣaṇa (symptomatology), upaśaya (diagnosis ex iuvantibus) and āpti (= saṃprāpti; pathogenesis) are the means of examining a disease (1.22cd);

deśa is of two kinds: bhūmideśa (the type of country) and dehadeśa (the body);<sup>19</sup> bhū(mi)deśa is of three types: jāṅgala, ānūpa and sādharmaṇa (1.23–24ab);<sup>20</sup> the two kinds of time: divided into units, such as kṣaṇa, etc., and relating to the stages of a disease (1.24cd);<sup>21</sup> remedial measures (auśadha) are either purificatory (śodhana) or pacificatory (śamana) (1.25ab); enemas (basti), purgatives (vireka) and emetics (vamana), as well as oil, ghee and honey, are the best remedial measures against vāta, pitta and kapha respectively (1.25cd–26ab); discrimination (dhī), constancy (dhairya) and knowledge concerning the ātman, etc., are the best remedial measures against the mental doṣas (1.26cd); the four limbs of treatment (pādacatuṣṭaya) consist of the physician, the attendant, the drug and the patient; the four good qualities of each of the four (1.27–29);<sup>22</sup> diseases are curable (sādhya) or incurable (asādhya); they are also divided into easily curable (susādhya), curable with difficulty (lṅcchrasādhya), palliable (yāpya), and not amenable to treatment (anupakrama);<sup>23</sup> the features of these four types (1.30–33);<sup>24</sup> types of patients to be rejected (1.34–35ab).

The chapter ends with an enumeration of the titles of the one hundred and twenty chapters of the treatise (1.35cd–49).

Chapter two is devoted to the daily regimen (dinacaryā).<sup>25</sup>

The subjects deal with are: the time to get up (2.1ab); urination and defecation (2.1cd); teeth-cleaning (dantapavana) (2.2–3);<sup>26</sup> disorders which make teeth-cleaning contra-indicated (2.4);<sup>27</sup> the application of a collyrium (sauvīrāñjana) (2.5–6ab), followed by an errhine (nāvana), a mouth wash (gaṇḍūṣa), the inhalation of a medicinal smoke (dhūma), and the chewing of betel (tāmbūla) (2.6cd);<sup>28</sup> contra-indications for betel-chewing (2.7);<sup>29</sup> massage with oil (abhyāṅga) (2.8–9ab);<sup>30</sup> contra-indications for massage (2.9cd); physical exercise (vyāyāma) (2.10);<sup>31</sup> contra-indications for physical exercise (2.11ab); special rules (2.11cd–12ab); massage (mardana) after physical exercise (2.12cd); disorders arising from excessive physical exercise (2.13); udvartana (2.15);<sup>32</sup> bathing (snāna) (2.16–17);<sup>33</sup> contra-indications for bathing (2.18); rules for good conduct (ācāra) (2.19–48).

Chapter three (ṛtucaryā) describes the seasons, physiological changes during the seasons, and seasonal regimen.<sup>34</sup>

The seasons are arranged in the following order: śiśira, vasanta, grīṣma, varṣāḥ, śarad, hima (3.1). The period covering the seven last days of a season and the seven first days of the next one is called ṛtusandhi (3.58).<sup>35</sup>

Chapter four (rogānutpādanīya) begins with the statement that thirteen natural urges should not be suppressed; the urges distinguished are identical with those of the *Caraka-* and *Suśrutasaṃhitā*, apart from the replacement of udgāra (eructation) by kāsa (coughing) (4.1).<sup>36</sup> The symptoms caused by the suppression of each of these urges are listed and the treatment of these syndromes is described (4.2–21ab); the symptoms brought about by the suppression of the urge to eructate and the treatment to be adopted are, in spite of the absence of udgāra in the preceding list, also dealt with (4.7d–8).<sup>37</sup>

Particular symptoms in persons habitually suppressing their urges should make the physician decide to reject them for treatment (4.21cd). The specific treatments of the disorders resulting from suppression have been described, but, generally, one should try to normalize the course of the provoked vāta (4.22–23). Morally condemnable urges to be controlled are enumerated (4.24).<sup>38</sup>

The remaining subjects of the chapter are: the importance of purificatory (śodhana) therapies (4.25–27); the treatment of patients emaciated by purificatory measures (bheṣajakṣapita) (4.28–30); the various types of āgantū diseases: those caused by malevolent beings (bhūta), poisonous substances (viṣa), wind,<sup>39</sup> fire, wounds (kṣata), fractures (bhaṅga), passions (rāga), hatred (dveṣa), fear (bhaya), etc. (4.31);<sup>40</sup> general rules for the prevention of nija and āgantū diseases, and the cure of diseases that have already arisen (4.32–34);<sup>41</sup> the season in which doṣas accumulated in a particular season should be expelled by means of purificatory measures (4.35); the conduct leading to freedom from disease (4.36).

Chapter five (dravadravyavijñānīya)<sup>42</sup> is concerned with fluids, their properties and their actions.

The substances discussed are: kinds of water (5.1–20ab); milk (5.20cd–29ab); dadhi (5.29cd–32ab); takra and mastu (5.32cd–35ab); navaṇṭa (5.35cd–36); ghee (5.37–40); kilāṭa (caseous milk), pīyūṣa (early beestings), kūrcikā (condensed milk), moraṇa (late beestings) (5.41);<sup>43</sup> superior and inferior types of ghee (5.42ab); the sugarcane and its products, along with yāsaśarkarā and honey (5.42cd–54); oils (5.55–61ab); other fatty substances (5.61cd–62ab); alcoholic and other fermented fluids: alcoholic fluids in general, surā, vāruṇī,<sup>44</sup> vaibhīṭakī surā, yavasurā, ariṣṭa, mārḍvika, khārjūra, śārkara, gauḍa, sīdhu, madhvāsava, śukta, śāṇḍākī, dhānyāmla, sauvīraka, tuṣṭadaka (5.62cd–81); types of urine (5.82–83).

Chapter six (annasvarūpavijñānīya) deals with articles of diet and medicinal substances.<sup>45</sup>

The subjects are: the group called śūkadhānya,<sup>46</sup> which consists of varieties of rice (6.1–11ab) and several kinds of tṇadhānya<sup>47</sup> (6.11cd–16); the group called śimbīdhānya,<sup>48</sup> mainly consisting of pulses (6.17–26ab); prepared foods (kṛtānna), amongst which are described: maṇḍa, peyā, vilepī, odana, (māṃsa)rasa, maudgarasa, kaulattharasa, tilavikṛti, piṇyākaṇṭhī, śuśkaśāka, virūdhaka, śāṇḍākīvaṭaka, rasālā, pānaka, lājāl, prthuka, dhānā, saktu, piṇyāka, vesavāra (6.26cd–42); the flesh of various animals, divided into the groups called mṛga, viṣkīra, pratuda, bileśaya, prasaha, mahāmṛga, apcara, and matsya; goats and sheep do not belong to any of these groups; the first three of the eight groups are collectively known as jāṅgala, the last three as ānūpa, and the remaining two as sādharāṇa (6.43–71);<sup>49</sup> vegetables (śāka) (6.72–115ab); fruits (phala) (6.115cd–140ab); grains, vegetables and fruits to be rejected for use (6.140cd–143ab); medicinal substances (auśadha): the group of salts, consisting of saindhava, sauvarcala, biḍa, sāmudra, audbhīda, kṛṣṇalavaṇa, romaka, and pāṇṣīttha (6.143cd–149), caustics (kṣāra) (6.150–152ab), medicinal plants (6.152cd–166ab);

groups of medicinal substances: pañcakolaka, mahatpañcamūla, hrasvapañcamūla, madhyamapañcamūla, jīvanākhyapañcamūla, and tṛṇākhyapañcamūla (6.166cd–171).

Chapter seven (annarakṣā) deals with a variety of subjects.

The topics discussed in its first part (7.1–29ab) are: the royal physician (prāṇācārya),<sup>50</sup> who should reside near the royal palace; it is his duty to protect the king from poison (7.1–2);<sup>51</sup> signs indicating that particular foods and drinks contain poison (7.3–10ab);<sup>52</sup> signs indicating that garlands, articles of dress and vessels contain poison (7.10cd–12ab);<sup>53</sup> the characteristics of a poisoner (7.12cd–13ab);<sup>54</sup> the detection of poison in foods by throwing them into a fire and examining the flames and the smell emitted (7.13cd–14ab);<sup>55</sup> the detection of poison in foods by making various animals eat them and examining the characteristic behaviour of these animals (7.14cd–18);<sup>56</sup> symptoms produced by poisoned foods when touched, when held in the mouth, after reaching the āmāśaya, after reaching the pakvāśaya; the treatment of these conditions (7.19–26);<sup>57</sup> a person who has consumed poison should be submitted to purificatory treatment along the upper and lower route; he should lick powdered copper (tāmraśarajās), mixed with honey, in order to purify his heart (hṛdviśodhana),<sup>58</sup> and then take powdered gold (hemacūrṇa), which makes the poison lose its adherence (7.27–29ab).<sup>59</sup>

The second part (7.29cd–51) is concerned with incompatible articles of diet (viruddhāhāra); it is linked to the preceding part by the statement that these incompatible foods are similar to poison (viṣa) and gara<sup>60</sup> (7.29cd). Many incompatible combinations are enumerated (7.30–45ab).<sup>61</sup> Viruddha is defined as anything that provokes the doṣas without eliminating them (7.45cd).<sup>62</sup> In general, purificatory or pacificatory treatment is recommended (7.46ab),<sup>63</sup> as well as the use of substances counteracting the provoked doṣas (7.46cd).<sup>64</sup> Circumstances making incompatible foods innocuous are mentioned (7.47).<sup>65</sup>

The best method of gradually discontinuing unwholesome habits and replacing them by healthy ones is described;<sup>66</sup> sudden changes would give rise to disorders (7.48–51).

The third part begins with mentioning the three supports<sup>67</sup> of life, consisting of food (āhāra), sleep (śayana) and sexual activity (abrahmacarya) (7.52).<sup>68</sup> Rules concerning sleep are formulated; sleeping disorders and their treatment are discussed (7.53cd–68).<sup>69</sup> Finally, many rules regulating sexual behaviour are given (7.69–76).

Chapter eight (mātrāṣīṭīya)<sup>70</sup> deals with: the importance of consuming the proper quantity (mātrā) of food (8.1–2);<sup>71</sup> the bad effects of a deficient and excessive intake of food (8.3–4ab);<sup>72</sup> excessive intake may lead to the diseases called alasaka and viśūcikā (8.4cd–6ab); the features of alasaka and viśūcikā<sup>73</sup> (8.7cd–8ab) which explain their names; the symptoms of the vāta, pitta and kapha types of viśūcikā (8.8cd–9);<sup>74</sup> the characteristics of alasaka (8.10–11);<sup>75</sup> the characteristics of the untreatable disease called daṇḍālasaka (8.12–13ab);<sup>76</sup> the characteristics of the equally untreatable disease called āmadoṣa or āmaviṣa (8.13cd–14);<sup>77</sup> the treatment of alasaka (8.15–16) and viśūcikā (8.17);<sup>78</sup> the general management of ajīrṇa, which is due to āma (8.18–20ab); dis-

orders caused by āma are relieved by the three kinds of apatarpaṇa (8.20cd–21ab); a small amount of āma requires laṅghana<sup>79</sup> (reducing measures), a moderate amount requires laṅghana and pācana measures, a large amount śodhana (purificatory measures) (8.21cd–22ab);<sup>80</sup> in general, diseases should be managed by measures which counteract their aetiological factors (nidāna- or hetuviparyaya),<sup>81</sup> but, when this is unsuccessful, with measures counteracting the disease itself (vyādhiviparyaya) (8.22cd–23);<sup>82</sup> as an alternative, therapies which are tadarthakārin<sup>83</sup> may be adopted; when the doṣas have become free from āma and the bodily fire is active again, one should employ massage with oil (abhyāñjana), oleation, enemas, etc. (8.24); the three types of ajīrṇa (disorders of digestion): āmājīrṇa, viṣṭabdhājīrṇa and vidagdhājīrṇa, caused by kapha, vāta and pitta respectively (8.25–26);<sup>84</sup> the treatment of the three types of ajīrṇa (8.27);<sup>85</sup> the characteristics and treatment of vilambikā, a type of ajīrṇa caused by kapha and vāta, which possesses all the features of āma (8.28);<sup>86</sup> the symptoms and treatment of rasaśeṣājīrṇa (8.29);<sup>87</sup> the general management of ajīrṇa (8.30ab); the general symptoms of ajīrṇa (8.30cd–31ab); other causes, not yet mentioned, of āmadoṣa (8.31cd–33ab); the characteristics of samaśana, adhyaśana and viśamāśana,<sup>88</sup> improper types of enjoying food which may cause death or give rise to serious diseases (8.33cd–35ab); rules for the proper consumption of food (8.35cd–38);<sup>89</sup> foods to be rejected (8.39);<sup>90</sup> articles of diet not suitable to habitual consumption (8.40–41); those suitable to habitual consumption (8.42–44);<sup>91</sup> foods to be consumed at the commencement, in the middle, and at the end of a meal (8.45–46ab);<sup>92</sup> two quarters of the stomach (kuṣṭhi) should be filled with solid foods and one quarter with liquids, while the remaining quarter should be left empty (8.46cd–47ab); anupānas (8.47cd–52);<sup>93</sup> contra-indications for the use of anupāna (8.53–54c);<sup>94</sup> rules to be observed after taking food and an anupāna (8.54d–55ab);<sup>95</sup> the proper time for taking a meal (8.55cd–ij).

Chapter nine (dravyādivijñānīya) discusses a number of basic concepts.

Substance (dravya) is the most important concept because taste, etc., reside in it; substances consist of the five mahābhūtas and are designated after the one that is predominantly present (9.1–2).<sup>96</sup> No substance possesses therefore one taste only; what is called its taste, is the taste manifestly present; the less manifest taste, or the taste perceived later on, is called the after-taste (anurasa) (9.3–4ab).<sup>97</sup> The qualities (guṇa), residing in a substance, are said to reside in its taste(s), figuratively, because of their intimate connection with taste (9.4cd–5ab). The qualities and actions of substances in which one of the mahābhūtas predominates are described (9.5cd–10a).<sup>98</sup> No substance found in the world is devoid of medicinal properties (9.10b–d).<sup>99</sup> Substances with a predominance of wind and fire possess an upwards-moving action, while substances with a predominance of earth and water possess a downwards-moving action (9.11).<sup>100</sup> Taste is a subject to be discussed later on (9.12ab).<sup>101</sup>

Some acknowledge eight kinds of vīrya: guru, laghu, snigdha, rūkṣa, uṣṇa, hima (= śīta), ūkṣṇa, and mṛdu (9.12cd–13ab);<sup>102</sup> Caraka has declared that action is brought about by vīrya only, no action being possible without vīrya (9.13cd–14ab);<sup>103</sup> guru, etc., are described as vīryas in agreement with the meaning of that term (anvartha), because they are the essential ones among the guṇas, possess great power, and prove

to be the chief ones in practice; moreover, their range of application is important and wide (9.14cd–15);<sup>104</sup> for these reasons, the term *vīrya* is not applied to *rasa*, etc. (9.16); others maintain that *uṣṇa* and *śīta* are the only *guṇas* worthy to be called *vīrya*, because *agni* and *soma* are the most powerful among the constituents of substances and cannot be surpassed, just as *vyakta* and *avyakta* on a cosmical scale (9.17–18ab); the actions of *uṣṇa* and *śīta vīrya* are described (9.18cd–19); the change of taste at the conclusion of the digestive process, due to the contact with the abdominal fire, is called post-digestive taste (*vipāka*) (9.20);<sup>105</sup> the sweet and saltish tastes are sweet after digestion, the acid taste remains acid, the bitter, pungent and astringent tastes are generally pungent after digestion (9.21); the effects of the post-digestive tastes are the same as those of the tastes before digestion (9.22ab);<sup>106</sup> some substances exert their actions through their taste, other substances through their post-digestive taste, *vīrya* or *prabhāva* (9.22cd–23ab);<sup>107</sup> the strongest among *rasa*, *vipāka*, *vīrya* or *prabhāva* overcomes the other ones; when of equal strength, *vipāka* overcomes *rasa*, *vīrya* both *rasa* and *vipāka*, and *prabhāva* all the other ones (9.23cd–25);<sup>108</sup> when two substances with the same taste, etc., differ in their actions, these specific effects arise from *prabhāva* (9.26–27ab);<sup>109</sup> substances called *vicitrapratyayārabdhā* differ in their actions, though their taste, etc., are similar (9.27cd–29).<sup>110</sup>

Chapter ten (*rasabhedīya*) deals with the tastes.

Its subjects are: the two *mahābhūtas* contributing to each of the six tastes (10.1);<sup>111</sup> the characteristic features of each taste (10.2–6); the actions of each taste on the human system (10.7–22ab);<sup>112</sup> groups of substances with a particular taste (10.22cd–32);<sup>113</sup> general rules concerning the properties of substances with a particular taste and exceptions to these rules (10.33–36ab); the relationships between taste and potency (*vīrya*) (10.36cd–37ab);<sup>114</sup> the tastes which are *rūkṣa* and promote retention of faeces, urine and flatus, followed by those which are *snigdha* and promote elimination of the waste products (10.37cd–38ab); tastes which are heavy (*guru*) and those which are light (*laghu*) (10.38cd–39ab);<sup>115</sup> the six tastes separately and their fifty-seven combinations (10.39cd–43);<sup>116</sup> the combinations of tastes and after-tastes become innumerable when taking into consideration their proportions in a combination (10.44).<sup>117</sup>

Chapter eleven (*doṣādivijñānīya*) deals with states of increase and decrease of bodily constituents.

The subjects are: the *doṣas*, elements of the body (*dhātu*), and waste products (*mala*) constitute the basic supports of the body (11.1);<sup>118</sup> the normal functions of each *doṣa* (11.2–3),<sup>119</sup> the chief function of each element of the body (11.4)<sup>120</sup> and of each of the three main waste products (11.5);<sup>121</sup> the characteristic features of increase of each of the three *doṣas* (11.6–8ab),<sup>122</sup> each of the seven elements (11.8cd–12),<sup>123</sup> each of the three main waste products (11.13–14ab),<sup>124</sup> and the other waste products, consisting of *dūṣikā*,<sup>125</sup> etc. (11.14cd); the characteristic features of decrease of each *doṣa* (11.15–16),<sup>126</sup> element (11.17–20)<sup>127</sup> and waste product (11.21–23);<sup>128</sup> general signs enabling a physician to infer that a *doṣa*, *dhātu* or *mala* has increased or decreased (11.24–25ab); decrease of waste products is more troublesome than

increase (11.25cd); vāta resides in the bones, pitta in sweat and blood, kapha in the remaining dhātus and malas; treatments leading to increase or decrease of a doṣa also result in increase or decrease of the correspondig dhātu(s) and mala(s), and the other way round, but this does not apply to vāta and osseous tissue (11.26–27c); all types of increase are usually due to tarpaṇa, all types of decrease to the opposite of tarpaṇa; generally, increase leads to increase of kapha, decrease to decrease of vāta (11.27cd–28); disorders arising from increase should be treated by means of reducing measures (laṅghana),<sup>129</sup> those brought about by decrease by means of roborants (bṛṃhaṇa),<sup>130</sup> but increase of vāta requires bṛṃhaṇa, its decrease laṅghana measures (11.29); therapeutic procedures indicated in cases of increase or decrease of a bodily element or waste product (11.30–33); portions of the bodily fire (kāyāgni), which has its own seat, are present in the bodily elements; the increase or decrease of these portions results in increase or decrease of the elements; increase or decrease of a particular element gives rise to the same condition in the succeeding one of the series (11.34–35ab); corrupted doṣas cause corruption of the bodily elements; corrupted doṣas and elements together make the waste products corrupted, which in their turn corrupt the channels transporting them (malāyana); two of these channels are present in the lower part (of the trunk), seven in the head, while sweat is transported in its own channels; corruption of these channels leads to diseases (11.35cd–36); ojas is described (11.37–39ab),<sup>131</sup> the causes and symptoms of decrease of ojas,<sup>132</sup> the treatment of this condition (11.39cd–41ab);<sup>133</sup> signs indicating increase of ojas (11.41cd); general dietary rules relating to increase and decrease of the doṣas (11.42–43); general signs indicating increase or decrease of the doṣas (11.44);<sup>134</sup> the importance of avoiding increase or decrease of the doṣas (11.45).

Chapter twelve (doṣabhedīya) discusses a number of issues related to the doṣas.

The subjects are: the seats (sthāna) of vāta, pitta and kapha (12.1–3);<sup>135</sup> the seats and functions of the five kinds of vāta (12.4–9),<sup>136</sup> pitta (12.10–14)<sup>137</sup> and kapha (12.15–18ab);<sup>138</sup> the qualities of substances leading to caya (accumulation), kopa (excitation) and śama (pacification) of vāta, pitta and kapha (12.19–22ab);<sup>139</sup> the characteristic features of caya, kopa and śama (12.22cd–24ab);<sup>140</sup> the three seasons in which caya, prakopa and praśama of vāta, pitta and kapha occur (12.24cd–25ab);<sup>141</sup> caya of vāta occurs in grīṣma (summer), of pitta in varṣāḥ (the rainy season), of kapha in śiśira (the cool season) (12.25cd–29ab); the doṣas spread over the whole body quickly, but, once excited, disappear again slowly (12.29cd–30ab); an endless number of disorders is brought about by the excited doṣas, which are their only causes (12.30cd–34c); the causes of excitement of the doṣas consist of wrong contact of the senses with their objects (asātmīyārthasamyoga), seasonal abnormalities, and wrong conduct; each of these is of three types: deficient, excessive and improper (12.34d–35); these nine varieties are explained and illustrated by means of examples (12.36–44ab);<sup>142</sup> the three pathways of diseases: bahirmārga, antarmārga and madhyamamārga; examples of diseases taking one of these pathways (12.44cd–49ab);<sup>143</sup> signs indicating a disorder of vāta (12.49cd–51c),<sup>144</sup> pitta (12.51d–52)<sup>145</sup> and kapha (12.53–54ab);<sup>146</sup> the importance of these signs for a physician (12.54cd–56); diseases are of three kinds: arising from bad

acts committed in the present life (dṛṣṭāpacāraja), committed in a former existence (pūrvāparādhaja), or arising from a combination of both (12.57);<sup>147</sup> a disease arising from the doṣas is brought about by specific aetiological factors (yathānidānam), a disease arising from one's karman manifests itself without these causative factors (hetu), an illness arising from both doṣas and karman is powerful in its effects (mahārambha), even when the hetu is weak (12.58); the course of these types of diseases and their cure (12.59); diseases are either independent (svatantra) or subordinate (paratantra); the latter are divided into prodromes (pūrvārūpa) and complications (upadrava) (12.60);<sup>148</sup> the characteristic features of these two groups (12.61a–c); the doṣas are also either svatantra or paratantra (12.61d); a subordinate disease or doṣa subsides together with the chief one, but, in case this does not happen, a powerful and afflicting complication arises which requires separate treatment (12.62–63); general rules for treating a disorder that cannot be labelled (12.64–66); any disorder can be treated adequately by taking into consideration the corruptible constituents (dūṣya) of the body, the habitat (deśa) of the patient, his strength, the time of appearance of the disorder, the digestive fire of the patient, his constitution, age, character (sattva), sātmya, dietary habits, and the stage (avasthā) of the disease, thus determining which doṣas are involved and which treatment should be applied (12.67–68);<sup>149</sup> pitfalls to be avoided by a physician (12.69–73); the number of varieties of increase and decrease of one doṣa and combinations of two or three doṣas, to equal or unequal degrees; the total number is sixty-two; the sixty-third variety is the balanced state of the doṣas which is equivalent to health (12.74–78ab);<sup>150</sup> the number of varieties becomes exceedingly large when the bodily elements are also taken into consideration (12.7cd–ef).

Chapter thirteen (doṣopakramaṇīya) is about the general treatment of disorders of the doṣas.

The subjects are: the general treatment of disorders caused by vāta (13.1–3),<sup>151</sup> pitta (13.4–9)<sup>152</sup> and kapha (13.10–12);<sup>153</sup> combinations of doṣas require combinations of these treatments (13.13); in general, the treatment of disorders by vāta and pitta is like the regimen for the summer season, that of those by kapha and vāta like the regimen for the spring, that of those by kapha and pitta like the regimen for the autumn (13.14); a doṣa should be subdued in the stage of its accumulation (caya); when it has reached the stage of excitation (kopa), it should be treated without opposing one of the other doṣas; when all the doṣas are excited, the strongest one should be subdued without opposing the other ones (13.15); a treatment that pacifies a particular disease, but gives rise to another one, is inadequate;<sup>154</sup> adequate treatment leads to cure without bringing about another disease (13.16); factors which make the doṣas move from the viscera (koṣṭha) to the śākhās (extremities), bones and marmans; factors making the doṣas move from the śākhās to the viscera, where they stay, waiting for a cause (of excitation); having increased in strength, due to time, etc., they reach the stage of excitation, (not only locally,) but in other places too (13.17–19); a doṣa that has established itself in the seat of another doṣa should be treated, when weak, in accordance with the seat, but, when powerful, according to its own nature (13.20); such an āgantudoṣa should be pacified after opposing the normally present one, or the other way round (13.21ab);<sup>155</sup>



doṣas which have moved sideways (tiryaggata)<sup>156</sup> trouble patients for a long time and should not be treated in haste; the physician should pacify them, bring them to the koṣṭha with gentle methods, and then try to expel them (13.21cd–23ab);<sup>157</sup> characteristics of doṣas associated with āma and devoid of it (13.23cd–24); the origin of āma (13.25); a divergent opinion on that subject (13.26); doṣas and corrupted dūṣyas, together with the diseases they bring about, are designated as sāma when they are mixed with this āma (13.27); the treatment of sāma conditions (13.28–33ab); the months most suitable for the elimination of doṣas (13.33cd–36); the ten periods of time for the administration of a medicine (13.37–41).<sup>158</sup>

Chapter fourteen (dvividhopakramaṇīya) deals with two important ways of treatment.

The subjects discussed are: the two types of treatment called saṃtarpaṇa or bṛṃhaṇa and apatarpaṇa or laṅghana (14.1–2);<sup>159</sup> the mahābhūtas predominantly present in roborant (bṛṃhaṇa) and reducing (laṅghana) substances (14.3ab); other therapeutic measures, such as snehana, rūkṣaṇa, svedana and stambhana can be subsumed under bṛṃhaṇa and laṅghana (14.3cd–4ab);<sup>160</sup> laṅghana is either śodhana (purificatory) or śamana (pacificatory) (14.4cd); śodhana, which eliminates the doṣas, is of five kinds: nirūha, vamaṇa (emesis), kāyareka (purgation), śīroreka (evacuation of the head) and asravisiruti (bloodletting) (14.5); śamana, which neither expels nor excites doṣas, but normalizes them, is of seven kinds: pācana measures, dīpana measures, hunger, thirst, physical exercise, exposure to the sun (ātapa) and exposure to wind (14.6–7ab);<sup>161</sup> bṛṃhaṇa is only śamana with regard to vāta and a combination of vāta and pitta (14.7cd); indications for bṛṃhaṇa (14.8–10ab)<sup>162</sup> and laṅghana (14.10cd–15ab);<sup>163</sup> persons suitable for laṅghana should not be treated with bṛṃhaṇa measures when suffering from a disease, but those suitable for bṛṃhaṇa may be treated with mild laṅghana measures or a combination of laṅghana and bṛṃhaṇa, dependent on various circumstances (14.15cd–16ab); the results of bṛṃhaṇa and laṅghana measures (14.16cd–18ab); excessive bṛṃhaṇa and laṅghana in general (14.18cd–19); excessive bṛṃhaṇa, its effects (14.20)<sup>164</sup> and treatment (14.21–28);<sup>165</sup> excessive laṅghana, its effects (14.29–32ab)<sup>166</sup> and treatment (14.32cd–35);<sup>167</sup> foods to be recommended to obese (sthūla) and lean (kṛśa) persons (14.36); therapies are either bṛṃhaṇa or laṅghana, and all diseases are to be treated in one of these two ways (14.37).

Chapter fifteen (śodhanādigaṇasaṃgraha)<sup>168</sup> deals with thirty-three groups of drugs and their actions.<sup>169</sup>

These groups consist of: emetics (chardanaṅgaṇa) (15.1),<sup>170</sup> purgatives (virecana) (15.2),<sup>171</sup> drugs suitable for nirūhaṇa (15.3)<sup>172</sup> and evacuation of the head (uttamāṅga-śodhana) (15.4);<sup>173</sup> drugs which subdue vāta (15.5), pitta (15.6) and kapha (15.7);<sup>174</sup> the groups called jīvanīya (15.8),<sup>175</sup> vidāryādi (15.9–10),<sup>176</sup> sārivādi (15.11),<sup>177</sup> padmakādi (15.12),<sup>178</sup> parūṣakādi (15.13),<sup>179</sup> añjanādi (15.14),<sup>180</sup> paṭolādi (15.15),<sup>181</sup> guḍīcyādi (15.16),<sup>182</sup> āragvadhādi (15.17–18),<sup>183</sup> asanādi (15.19–20),<sup>184</sup> varuṇādi (15.21–22),<sup>185</sup> uṣakādi (15.23),<sup>186</sup> vīratārādi (15.24–25),<sup>187</sup> rodrhrādi (15.26–27),<sup>188</sup> arkādi (15.28–29),<sup>189</sup> surasādi (15.30–31),<sup>190</sup> muṣkakādi (15.32),<sup>191</sup> vatsakādi (15.33–34),<sup>192</sup> vacādi and haridrādi (15.35–36),<sup>193</sup> priyaṅgvādi and ambaṣṭhādi (15.

37–39),<sup>194</sup> mustādi (15.40),<sup>195</sup> nyagrodhādi (15.41–42),<sup>196</sup> elādi (15.43–44),<sup>197</sup> and śyāmādi (15.45).<sup>198</sup>

Drugs which are not available may be substituted and those inappropriate may be left out (15.46). The drugs mentioned may be employed in various types of preparation (15.47).

Chapter sixteen (snehavidhi) is about oleation (sneha).<sup>199</sup>

The subjects dealt with are: the properties of snehana substances; those with opposite properties are rūkṣaṇa (bringing about dryness) (16.1);<sup>200</sup> the four most suitable substances for oleation: ghee, bone marrow, muscle fat (vasā) and oil; ghee is the very best among them (16.2–3ab);<sup>201</sup> the effects on the doṣas of the four mentioned substances (16.3cd); their grades of heaviness (16.4ab); mixtures of two, three or four fatty substances are called yamaka, trivṛta and mahant respectively (16.4cd); indications and contra-indications for oleation (16.5–8ab);<sup>202</sup> indications for oleation with ghee, oil, muscle fat and marrow (16.8cd–12ab);<sup>203</sup> the proper time for oleation (16.12cd–14ab);<sup>204</sup> the various ways of administration of a sneha, either mixed with food (vicāraṇā) or pure (acchapeya) (16.14cd–17ab);<sup>205</sup> the doses of acchapeya: small, medium and large; indications for these doses (16.17cd–21);<sup>206</sup> the general effects of a sneha (16.22);<sup>207</sup> rules to be observed by a patient subjected to snehana (16.23–29ab);<sup>208</sup> the duration of the treatment (16.29cd–30ab);<sup>209</sup> signs indicating proper, improper and excessive oleation (16.30cd–31);<sup>210</sup> the bad effects of improper oleation (snehavyāpad) (16.32–33ab) and their treatment (16.33cd–35ab);<sup>211</sup> the features indicating proper and improper virūkṣaṇa (16.35cd)<sup>212</sup> and the therapy to be applied to manage the bad effects of improper application (16.36–37ab); rules for oleation in special groups of patients (16.37cd–39ab);<sup>213</sup> types of patients who require a special type of sneha called sadyaḥsneha; recipes for sadyaḥsneha (16.39cd–43ab);<sup>214</sup> more rules for particular groups of patients (16.43cd–45);<sup>215</sup> the benefits of regularly applied oleation (16.46).<sup>216</sup>

Chapter seventeen (svedavidhi) is concerned with sudation (sveda).<sup>217</sup>

The subjects are: the four types of sudation: tāpa (application of dry heat), upanāha (application of poultices), ūṣman (application of warm vapour) and drava (application of warm liquids) (17.1ab);<sup>218</sup> descriptions of these four methods (17.1cd–11);<sup>219</sup> specifications regarding the procedure to be followed (17.12–14);<sup>220</sup> benefits of sudation;<sup>221</sup> after-treatment (17.15);<sup>222</sup> the bad effects of excessive sudation<sup>223</sup> and their treatment with stambhana (checking) measures; more indications for stambhana (17.16–17);<sup>224</sup> the properties of svedana and stambhana substances (17.18–19);<sup>225</sup> the effects of stambhana (17.20ab);<sup>226</sup> the bad effects of excessive stambhana (17.20cd–21ab);<sup>227</sup> contra-indications (17.21cd–24)<sup>228</sup> and indications (17.25–27);<sup>229</sup> types of sudation without the use of fire (anāgneyasveda) (17.28);<sup>230</sup> the results of sudation (17.29).<sup>231</sup>

Chapter eighteen (vamanavirecanavidhi) is about emesis (vamana) and purgation (virecana).

The subjects dealt with are: emesis is indicated in disorders caused by kapha singly or by combinations with a predominance of kapha; disorders by pitta alone or by combinations with a predominance of pitta should preferably be treated by purgation (18.1);<sup>232</sup> indications for emesis (18.2–3ab);<sup>233</sup> contra-indications (18.3cd–6);<sup>234</sup> patients regarded to be unfit for a whole series of treatments (18.7); indications (18.8–10c)<sup>235</sup> and contra-indications for purgation<sup>236</sup> (18.10d–11); the procedure for emesis (18.12–23c);<sup>237</sup> signs indicating deficient, proper and excessive emesis (18.23d–26);<sup>238</sup> after-treatment (18.27–28);<sup>239</sup> the regimen called *peyādikrama*<sup>240</sup> and its results (18.29–30);<sup>241</sup> the minimum, intermediate and maximum number of bouts of vomiting during treatment is four, six and eight respectively; these numbers, when applied to voiding during a treatment with purgatives, are ten, twenty and thirty; the corresponding amounts of voided matter consist of one, two and four *prastha* (18.31);<sup>242</sup> the limits of emesis and purgation (18.32);<sup>243</sup> the procedure for purgation, which is dependent on the type of digestive system (*mṛdu-* or *krūrakoṣṭha*)<sup>244</sup> of the patient (18.33–38ab);<sup>245</sup> signs indicating deficient, proper and excessive purgation (18.38cd–42ab);<sup>246</sup> after-treatment (18.42cd–47ab);<sup>247</sup> emesis eliminates immature (*apakva*) *doṣas*, purgation *doṣas* which are subject to maturation (*pacyamāna*) (18.47cd–48ab);<sup>248</sup> rules for special groups of patients (8.48cd–57ab);<sup>249</sup> *oleation* and *sudation* are indicated in the interval between emesis and purgation, between purgation and the application of an *anuvāsana* enema, etc., and at the end of such a series of treatments (18.57cd–58ab); *oleation* and *sudation* should always precede purificatory treatment (i.e., emesis and purgation) (18.58cd–59);<sup>250</sup> the general benefits of purificatory treatment (18.60).<sup>251</sup>

Chapter nineteen (*bastividhi*) deals with enemas (*basti*).

The subjects are: treatment with enemas is advisable when *vāta* has increased or when *vāta* is the predominant one among increased *doṣas* (19.1ab);<sup>252</sup> the three types of *basti*: *nirūha*, *anuvāsana* and *uttarabasti* (19.1cd–2ab); indications (19.2cd–3)<sup>253</sup> and contra-indications (19.4–6ab)<sup>254</sup> for an *āsthāpana* (= *nirūha*) enema; indications (19.6cd–7a)<sup>255</sup> and contra-indications (19.7b–9ab)<sup>256</sup> for an *anuvāsana* enema; the materials for the nozzle (*netra*); its shape (19.9cd–10ab); its length, dependent on the age of the patient (19.10cd–12ab); the dimensions of its orifice (19.12cd–14ab); the two rings (*karṇikā*) on the nozzle (19.14cd–15c);<sup>257</sup> the pouch (19.15d–17);<sup>258</sup> the dosages required for various age groups (19.18–19);<sup>259</sup> the quantity of fluid for an *anuvāsana* should be one-fourth of that for a *nirūha* (19.20ab);<sup>260</sup> the procedure for an *anuvāsana* (19.20cd–35)<sup>261</sup> and a *nirūha* (19.36–38ab);<sup>262</sup> the preparation of the decoction for a *nirūha* (19.38cd–46ab);<sup>263</sup> rules for the application (19.46cd–50c);<sup>264</sup> after-treatment (19.50d–51ab);<sup>265</sup> the treatment of complications (19.51cd–52); the signs of deficient, proper and excessive application of *anuvāsana* (19.53–54ab);<sup>266</sup> various rules for the application of *anuvāsana* and *nirūha* (19.54cd–62); the courses of treatment with enemas known as *karma*-, *kāla*- and *yogabasti* (19.63–65ab);<sup>267</sup> the advantages of combining *anuvāsana* and *nirūha* (19.65cd–67ab); the variety of *anuvāsana* called *mātrābasti* (19.67cd–68a); the indications for *mātrābasti* (19.68b–69);<sup>268</sup> *uttarabasti* (urethral and vaginal douche), suitable in diseases of the bladder and gynaecological disor-

ders, should be resorted to after the application of two or three anuvāsanas (19.70); the requirements for the nozzle (19.71–72) and the liquid (19.73ab) for an uttarabasti used as a urethral douche; the procedure (19.73cd–76ab); three or four douches should be given;<sup>269</sup> the after-treatment and diet are like those after anuvāsana (19.76cd–77ab);<sup>270</sup> indications for a vaginal douche (19.77cd–78); the nozzle (19.79–80ab); the quantity of fluid (19.80cd); the procedure (19.81–82);<sup>271</sup> the interval between emesis and purgation, and that between purgation and nirūha should be a fortnight; anuvāsana should follow immediately upon nirūha, but the interval should be seven days after purgation (19.83); the general effect of enemas (19.84); the eminence of the treatment with enemas (19.85–87ab); phlebotomy has the same eminent position in diseases due to blood (19.87cd).

Chapter twenty (nasyavidhi) deals with nasal medications.

The subjects are: nasal medication (nasya) is indicated in diseases located above the clavicles (ūrdhvajatru), because the nose is the gateway to the head (20.1);<sup>272</sup> the three types of nasya: virecana (evacuating), bṛṃhana (roborant) and śamana (appeasing) (20.2ab);<sup>273</sup> the indications for these three types (20.2cd–4);<sup>274</sup> the materials used in the preparation of the three types (20.5–6);<sup>275</sup> another classification of nasal medications: marśa and pratimarśa are prepared with fatty substances; avapīḍa is prepared with the paste (kalka), etc., of drugs with a sharp (tīkṣṇa) action; dhūma is blown into the nose in the form of a powder (cūrṇa) by means of a tube (nāḍī) (20.7–9ab);<sup>276</sup> the doses to be administered and the definition of their unit, the drop (bindu) (20.9cd–11a);<sup>277</sup> contra-indications for nasal medication (20.11b–13c);<sup>278</sup> the times of the day, dependent on the season, which are most suitable to the administration of a nasya (20.13d–16);<sup>279</sup> the procedure to be followed in applying a nasya (20.17–21ab);<sup>280</sup> the treatment to be applied when the patient faints (20.21cd); a fatty nasya should be given immediately after an evacuating one (20.22ab);<sup>281</sup> after-treatment (20.22cd–23ab);<sup>282</sup> the signs indicating proper, deficient and excessive treatment (20.23cd–25);<sup>283</sup> indications and contra-indications for a pratimarśa, rules for its application, its effects (20.26–30ab);<sup>284</sup> age limits for treatment with a nasya, dhūma (fumigation) and kavala (gargle), and for śuddhi (purificatory treatment) (20.30cd–31); the efficacy of the daily use of pratimarśa (20.32–34ab); the differences between marśa and pratimarśa; the use of marśa, though more difficult and risky, has the advantages of quicker action and better results; the same differences can be observed between acchapāna (of a sneha) and vicāraṇā, kuṭīsthiti and vātātapasthiti (as rasāyana methods), anuvāsana and mātṛabasti (20.34cd–36); the preparation of the nasya called aṇutaila (20.37–38);<sup>285</sup> the beneficial effects of habitual nasal therapy (20.39).<sup>286</sup>

Chapter twenty-one (dhūmapānavidhi) is about the inhalation of medicinal smoke.

The subjects dealt with are: the importance of daily inhaling the smoke (dhūmapāna) of drugs (21.1);<sup>287</sup> snigdha, madhya and tīkṣṇa dhūmapāna are indicated against (disorders by) vāta, vāta and kapha together, and kapha respectively (21.2ab);<sup>288</sup> contra-indications (21.2cd–4ab);<sup>289</sup> disorders arising from inhaling smoke at an improper time or in excess;<sup>290</sup> the treatment of these disorders (21.4cd–5ab); the times

at which mṛdu (= snigdha), madhyama and virecana (= tīkṣṇa) dhūmapāna are useful (21.5cd–7ab);<sup>291</sup> requirements for the smoking pipe (dhūmanetraka) (21.7cd–9ab);<sup>292</sup> the procedure for medicinal smoking (21.9cd–12a);<sup>293</sup> the drugs to be used for the three types of dhūmapāna (21.13b–18);<sup>294</sup> the preparation of the wick (varti) (21.19–21ab);<sup>295</sup> a special type of dhūmapāna for the treatment of cough (21.21cd–22ab);<sup>296</sup> the beneficial effects of medicinal smoking (21.22c–f).<sup>297</sup>

Chapter twenty-two (gaṇḍūṣādividhi) is about gargles and a number of other medicinal preparations.

The subjects dealt with are: the four kinds of gaṇḍūṣa (holding a medicinal fluid in the mouth);<sup>298</sup> snigdha, śamana, śodhana and ropaṇa;<sup>299</sup> the first three are active against the doṣas, the fourth kind heals wounds and sores (vraṇaghna);<sup>300</sup> the tastes of the drugs to be used in the preparation of these four kinds of gaṇḍūṣa (22.1–3c); the liquids to be employed<sup>301</sup> and their indications (22.3d–10ab); the procedure for the use of a gaṇḍūṣa (22.10cd–11);<sup>302</sup> the difference between a gaṇḍūṣa and a kavala (gargle) (22.12ab);<sup>303</sup> disorders curable by a kavala (22.12c–f); the three forms of pratisāraṇa (the application of a medicinal preparation to the oral cavity): a kalka (paste), rasakriyā (inspissated decoction) and cūrṇa (powder); pratisāraṇa with the same drugs as those employed in gaṇḍūṣa is indicated in kapha disorders (22.13);<sup>304</sup> the three kinds of mukhālepa (the application of a paste to the face): doṣaha (counteracting the doṣas), viṣaha (counteracting poison) and varṇakara (producing a normal colour) (22.14); rules for its application (22.15–16); rules for the patient (22.17ab); contra-indications (22.17cd–18a); the curative effects (22.18b–d); six recipes, one for each season (22.19–22ab); the beneficial effects of its habitual application (22.22cd–23ab);<sup>305</sup> the four kinds of mūrdhataila (application of oil to the head): abhyaṅga (inunction, accompanied by mild massage), (pari)ṣeka (pouring oil on the head), picu (application of a cloth soaked in oil), and (śiro)basti; each successive method is more efficacious than the preceding one (22.23cd–24ab); indications for these four types (22.24cd–26); the procedures for (śiro)basti; after-treatment; the maximum duration of the treatment (22.27–31);<sup>306</sup> karṇapūrṇa (filling the auditory duct with oil); this treatment should be applied until the complaints subside, or, in healthy patients, during one hundred mātṛā (22.32);<sup>307</sup> the definition of a mātṛā (22.33); the curative actions and beneficial effects in general of mūrdhataila (22.34).<sup>308</sup>

Chapter twenty-three (āścotanāñjanavidhi) is concerned with eyedrops and collyria.

The subjects dealt with are: the usefulness of āścotana (the application of eyedrops) in the initial stage of all eye diseases (23.1); the suitable temperature of the drops, dependent on the doṣa involved (23.2ab); the procedure for the application of eyedrops (23.2cd–4); the bad effects of wrong application (23.5–6); the beneficial effects of correct administration (23.7);<sup>309</sup> indications for the application of an āñjana (collyrium) to the eyes (23.8–9);<sup>310</sup> the three types of āñjana: lekhaṇa (scarifying), ropaṇa (healing) and dṛṣṭiprasādana (clarifying the vision);<sup>311</sup> the tastes and vīrya of the drugs to be employed in these three types (23.10–11ab);<sup>312</sup> a pratyañjana is a collyrium of prasādana action, to be used when the eyes are irritated by a sharp (tīkṣṇa) āñjana (23.11cd–

12ab);<sup>313</sup> the requirements for the rod (śālākā) for the application of an añjana (23.12cd–13);<sup>314</sup> the three preparations employed in an añjana: piṇḍa (pill), rasakriyā (in-spissated decoction) and cūrṇa (powder), indicated in serious, moderate and mild (disorders of the) doṣas respectively (23.14);<sup>315</sup> the correct doses of these three preparations (23.15–16ab);<sup>316</sup> the most suitable periods of time for an añjana (23.16cd–22);<sup>317</sup> contra-indications for an añjana (23.23–24);<sup>318</sup> properties making an añjana unsuitable for use (23.25); after-treatment (23.26–31).<sup>319</sup>

Chapter twenty-four (tarpaṇaputaṭapākavidhi) is, as its title indicates, on the associated procedures called tarpaṇa and putaṭapāka.

Its subjects are: the indications for tarpaṇa (saturating the eyes by bathing them in a fatty substance); the suitable periods of time for this treatment; the procedure to be followed; the choice of the fatty substance; the duration of the treatment (24.1–9);<sup>320</sup> daily tarpaṇa is required in disorders by vāta, tarpaṇa on alternate days in disorders by pitta, with an interval of two days in disorders by kapha and in healthy persons, or until the eyes are fully saturated (24.10);<sup>321</sup> signs indicating proper, deficient and excessive treatment (24.11);<sup>322</sup> tarpaṇa should be followed by putaṭapāka treatment (24.12–13ab);<sup>323</sup> indications for the snehana, lekhaṇa and prasādana types of putaṭapāka (24.13cd–14ab);<sup>324</sup> the materials to be employed in these three types (24.14cd–17ab);<sup>325</sup> the preparation of a putaṭapāka (24.17cd–19ab);<sup>326</sup> the procedure for its application (24.19cd–20c);<sup>327</sup> the signs of proper, deficient and excessive treatment are like those of tarpaṇa (24.20d);<sup>328</sup> contra-indications (24.21ab); after-treatment following tarpaṇa and putaṭapāka (24.21cd–22ab);<sup>329</sup> the importance of strengthening the eyes (24.22c–f).

Chapter twenty-five (yantravidhi) is concerned with blunt surgical instruments.

The subjects dealt with are: the definition of a yantra (blunt surgical instrument); its various uses (25.1–3ab);<sup>330</sup> the various types of svastikayantra (25.4cd–7ab);<sup>331</sup> the two types of saṃdaṃśa (25.7cd–8);<sup>332</sup> the mucuṇḍī (25.9);<sup>333</sup> the two types of tālayantra (25.10);<sup>334</sup> nāḍīyantras in general (25.11–12);<sup>335</sup> a number of particular nāḍīyantras, amongst which the arśoyantra<sup>336</sup> (for examining haemorrhoids) and śamīyantra<sup>337</sup> (for squeezing haemorrhoids); the aṅgulitrāṇaka (finger protector)<sup>338</sup> (25.13–25); the śṛṅga (horn), alābū (hollowed gourd) and ghaṭī (pot) (25.26–28ab);<sup>339</sup> the śālākās in general; various types of śālākā and śaṅku (hook) (25.28cd–35); more types of śālākā; the jāmbavausṭha<sup>340</sup> (25.36–39ab);<sup>341</sup> the anuayantras (accessory blunt instruments) (25.39cd–41ab);<sup>342</sup> the functions of the yantras (25.41c–f);<sup>343</sup> the excellent qualities of the kaṅkamukhayantra as the foremost among the yantras (25.42).<sup>344</sup>

Chapter twenty-six (śāstravidhi) is concerned with sharp surgical instruments.

The subjects dealt with are: the requirements for the twenty-six śāstras (sharp instruments) (26.1–4);<sup>345</sup> a list of the twenty-six śāstras (four additional verses);<sup>346</sup> descriptions of the form, dimensions, etc., and the uses of each instrument:<sup>347</sup> maṇḍalāgra (26.5); vṛddhipattra (26.6–7ab); utpala(pattra) and adhyardhadhāra (26.7cd); sarpāsya (26.8ab);<sup>348</sup> two kinds of eṣaṇī: gaṇḍūpadamukhā and sūcīmukhā

(26.8cd–9ab);<sup>349</sup> vetasa(pattra), śarāryāśya<sup>350</sup> and trikūrcaka (26.9cd); kuśavadana<sup>351</sup> and ātāvadanā<sup>352</sup> (26.10ab); antarmukha<sup>353</sup> (and ardhacandrānana)<sup>354</sup> (26.10cd–11a); vr̥himukha (26.11b–d); kuṭhāri (26.12); śalākā (26.13a–c);<sup>355</sup> aṅguśīśastra (26.13c–15);<sup>356</sup> badiśa (26.16ab); karapattra (26.16cd–17ab); kartari (26.17cd);<sup>357</sup> nakhaśastra (26.18); dantalekhanaka (26.19);<sup>358</sup> three kinds of sūci (26.20–21ab);<sup>359</sup> vr̥hivaktrā sūci (26.21cd–22a);<sup>360</sup> kūrcā (26.22b–23ab);<sup>361</sup> khaja (26.23cd–24ab);<sup>362</sup> karnapālīvyadhana (26.24cd);<sup>363</sup> āra, and a sūci for piercing thick earlobes (26.25–26); non-metallic anuśastras (accessory sharp instruments), such as leeches, caustics, fire, glass, stones, nails, etc. (26.27–28ab);<sup>364</sup> the functions of sharp instruments (26.28cd–29ab);<sup>365</sup> the eight defects (doṣa) of sharp instruments (26.29cd–30ab);<sup>366</sup> the ways of handling the sharp instruments (26.30cd–32);<sup>367</sup> the case for keeping the instruments (śastrakośa) (26.33–34);<sup>368</sup> indications for the use of leeches (jalaukas) (26.35ab);<sup>369</sup> poisonous leeches, disorders caused by using them, the treatment of these disorders (26.35cd–37c);<sup>370</sup> non-poisonous leeches (26.37d–38);<sup>371</sup> non-poisonous leeches are to be rejected when they are intoxicated by blood (raktamatta) (26.39);<sup>372</sup> the application of leeches and their removal (26.40–43ab);<sup>373</sup> the method for making the leeches vomit the blood sucked (26.43cd); the leeches should be protected from intoxication by blood (raktamada) and not be used again for seven days (26.44ab); signs indicating that their vomiting has been proper, deficient or excessive (26.44cd–45ab);<sup>374</sup> the storage of leeches (26.45cd–46ab);<sup>375</sup> the treatment to be applied when not all the corrupted blood has been removed (by the leeches) (26.46cd–47ab); removal of the corrupted blood makes redness and pain subside (26.47cd); corrupted blood that accumulates becomes sour (vyamla) (26.48); removal of corrupted blood by means of a gourd or pot is indicated when the corruption is caused by vāta or kapha, contra-indicated when caused by pitta (26.49); blood corrupted by vāta or pitta may be removed by a horn, but this is contra-indicated when kapha is the corrupting agent (26.50);<sup>376</sup> bloodletting by means of scratching (pracchāna) (26.51–52);<sup>377</sup> indications for bloodletting by scratching, by the use of leeches, a horn, gourd or pot, and by means of phlebotomy (26.53–55ab);<sup>378</sup> the treatment of the site of bleeding (26.55–56).<sup>379</sup>

Chapter twenty-seven (sirāvyadha)<sup>380</sup> is concerned with phlebotomy.

The subjects dealt with are: the characteristics of pure (śuddha) blood (27.1–2ab);<sup>381</sup> usually, blood gets corrupted by pitta and kapha; the disorders arising from corrupted blood (27.2cd–5ab);<sup>382</sup> phlebotomy is the appropriate treatment in these disorders (27.5cd); contra-indications for phlebotomy (27.6–9ab);<sup>383</sup> the sites for phlebotomy in various diseases (27.9cd–18ab);<sup>384</sup> the procedure to be followed for phlebotomy, dependent on the site where a vein should be cut (27.18cd–32);<sup>385</sup> the depth of the incision and the instruments to be employed (27.33);<sup>386</sup> the flow of blood when the cut is adequate, inadequate or too large (27.34–35ab);<sup>387</sup> causes for the non-flowing of blood (27.35cd–36ab);<sup>388</sup> the treatment of this condition (27.36cd–37);<sup>389</sup> the corrupted blood flows out first (27.38ab);<sup>390</sup> the signs of successful phlebotomy (27.38cd);<sup>391</sup> the treatment of patients who faint during bleeding (27.39);<sup>392</sup> the characteristics of blood corrupted by vāta, pitta, kapha, a combination of two doṣas and all

three doṣas (27.40–41);<sup>393</sup> the maximum amount of blood to be let;<sup>394</sup> the bad effects of excessive bleeding<sup>395</sup> and their treatment (27.42–43ab); the treatment of the site of bleeding (27.43cd–44ab); when to repeat the bleeding procedure (27.44cd–45ab);<sup>396</sup> a small residue of corrupted blood may be allowed to remain; excessive letting should always be avoided (27.45cd–46ab);<sup>397</sup> methods to remove small amounts of corrupted blood (27.46cd–47); haemostasis (27.48–50);<sup>398</sup> after-treatment (27.51–52);<sup>399</sup> the characteristics of persons with purified blood (27.53).<sup>400</sup>

Chapter twenty-eight (śalyāharaṇavidhi) is about the removal (āharaṇa) of foreign bodies (śalya).

The subjects dealt with are: the five ways of entry (gati) of a śalya (28.1ab);<sup>401</sup> the general characteristics of a wound (vraṇa) containing a foreign body (28.1cd–2);<sup>402</sup> the signs indicating that a foreign body is present in a particular tissue, type of vessel, or other bodily structure (28.3–10ab);<sup>403</sup> a wound caused by a foreign body lodged somewhere in the direction of the hair (anuloma) heals when the patient is healthy, though problems may arise later (28.10cd–11ab);<sup>404</sup> the determination of the site of a foreign body (28.11cd–17);<sup>405</sup> the shape of the foreign body determines the shape of the wound (28.18); foreign bodies may be removed in the direction of entry or in the opposite direction (28.19);<sup>406</sup> those śalyas which have entered sideways may be removed by cutting (28.20ab); types of śalyas that should not be removed (28.20cd–21); foreign bodies which may be removed with the hand or particular instruments (28.22–24);<sup>407</sup> foreign bodies to be removed by cutting with sharp instruments (28.25); the removal of śalyas lodged in sirās or snāyus (28.26ab); the removal of a śalya lodged in the cardiac region (28.26cd–27)<sup>408</sup> and the bones (28.28–31);<sup>409</sup> the removal of arrows (28.32–34ab);<sup>410</sup> the removal of a foreign body lodged in the gastro-intestinal tract (28.34cd–35ab);<sup>411</sup> throat (28.35cd–38ab);<sup>412</sup> oral cavity or nose (28.38cd); the treatment of a food bolus (grāsaśalya) that has become arrested in the throat (28.39ab);<sup>413</sup> the removal of śalyas from the eyes or wounds (28.39cd);<sup>414</sup> the treatment of persons who nearly drowned and are full of water (28.40);<sup>415</sup> the treatment of persons into whose ears a small animal (kīṭa) has entered (28.42); foreign bodies that get dissolved by the bodily heat (28.43); those that do not dissolve may cause suppuration (28.44–45ab); suppuration, if not occurring spontaneously, should be induced; afterwards, the foreign body should be removed surgically (28.45cd–47ab).<sup>416</sup>

Chapter twenty-nine (śastrakarmavidhi) is concerned with sores (vraṇa) and their treatment.

The subjects dealt with are: sores tend to develop into suppurative ulcers; hence, pus formation should by all means be prevented (29.1–2ab);<sup>417</sup> the three stages of local swellings (śopha): unripe (āma), ripening (pacyamāna) and ripe (pakva) (29.2cd–6ab);<sup>418</sup> ripening (pāka) as a process to which each of the doṣas, as well as blood, contributes (29.6cd–7ab);<sup>419</sup> the symptoms arising when the formation of pus increases (29.7cd–8ab); the symptoms of the type of swelling, with a predominance of kapha, that is called raktapāka (29.8cd–10ab);<sup>420</sup> general indications for dāraṇa (i.e., the application of caustics, etc., which makes the swelling burst)<sup>421</sup> and pāṭana (treatment



with sharp instruments) (29.10cd–11ab); the bad effects of cutting an unripe swelling (29.11cd–14ab);<sup>422</sup> the treatment preceding surgical intervention (29.14cd–16ab);<sup>423</sup> the procedure for surgical intervention (pātana) (29.16cd–22ab); places where a horizontal incision should be made (29.22cd–23); after-treatment; rules for the regimen of the patient (29.24–33);<sup>424</sup> dietary rules for the patient (29.34–41ab);<sup>425</sup> more rules for after-treatment (29.41cd–48); types of vranas that should be sutured (sīvyā) (29.49–51ab);<sup>426</sup> contra-indications for suturing (29.51cd–52ab);<sup>427</sup> wound toilet before suturing, the technique of suturing and the materials to be used (29.52cd–54ab);<sup>428</sup> after-treatment (29.54cd–56);<sup>429</sup> materials for bandages (bandhana) (29.57–59ab);<sup>430</sup> the fifteen types of bandage and the indications for these types (29.59cd–61);<sup>431</sup> rules for the application of a bandage (29.62–66ab);<sup>432</sup> the bad effects of not bandaging a vraṇa (29.66cd–67);<sup>433</sup> the beneficial effects of bandaging (29.68);<sup>434</sup> the treatment of chronic vranas with drugs wrapped in the leaves of particular trees (29.70cd–72ab); contra-indications for bandaging (29.72cd–74ab);<sup>435</sup> vranas, not protected by a bandage, may get infested by the larvae of flies;<sup>436</sup> the symptoms of this condition and its treatment (29.74cd–77ab); vranas with a residual doṣa cannot be cured within a short time (29.77cd–78ab); rules to be observed by a patient after healing of a vraṇa (29.78cd–79); the management of complications (29.80).

Chapter thirty (kṣārāgnikarmavidhi) is about the application of caustics (kṣāra) and cautery (agnikarman).

The subjects are: the advantages of treatment with a caustic, which is the best among the śāstras and anuśāstras (30.1–2);<sup>437</sup> indications for the internal and external use of a caustic (30.3–4ab);<sup>438</sup> contra-indications (30.4cd–8ab);<sup>439</sup> the preparation of a caustic of moderate strength (30.8cd–20a);<sup>440</sup> the preparation of a mild and a strong caustic (30.20b–22ab);<sup>441</sup> indications for these three types of caustic (30.22cd–23);<sup>442</sup> the ten qualities of a caustic;<sup>443</sup> a caustic acts like a sharp instrument and like fire; various actions of a caustic (30.24–26); general rules for the application (30.27–28a);<sup>444</sup> rules for particular diseases (30.28b–30); after-treatment (30.31–34ab);<sup>445</sup> signs indicating proper, deficient and excessive treatment with a caustic (30.34cd–37);<sup>446</sup> the treatment to be employed after excessive application (30.38–39);<sup>447</sup> the harmful effects of a caustic administered by a bad physician and its beneficial effects when applied properly (additional verse);<sup>448</sup> cauterization (agni) is even superior to the treatment with a caustic (30.40);<sup>449</sup> indications for cauterization and the materials to be used in particular diseases (30.41–44a);<sup>450</sup> contra-indications (30.44b–d);<sup>451</sup> the coating and paste to be applied after cauterization (30.45ab);<sup>452</sup> signs indicating proper cauterization (30.45cd–46ab);<sup>453</sup> accidental burns (pramādadagdhā) produce the same symptoms as improper and excessive cauterization; the signs characteristic of tucchadagdhā,<sup>454</sup> durdagdhā (improper burning) and atidagdhā (excessive burning) (30.46cd–49ab);<sup>455</sup> the treatment of tucchadagdhā, durdagdhā, samyagdagdhā and atidagdhā (30.49cd–52ab);<sup>456</sup> the treatment of burns by hot fatty substances (snehadagdhā) (30.52cd).<sup>457</sup>

The last verse (30.53) concludes the Sūtrasthāna.<sup>458</sup>

## Chapter 2

### Śārīrasthāna

Chapter one<sup>2</sup> (garbhāvakrānti)<sup>3</sup> deals with the following subjects: a living being (sattva) arises, in the form of an embryo (garbha), from pure śukra (semen) and ārtava (the female procreational fluid) (1.1); this embryo, formed from subtle (sūkṣma) mahābhūtas, followed by sattva,<sup>4</sup> develops gradually in the womb (1.2);<sup>5</sup> the invisible entry of sattva into the womb (1.3); the various destinies of sattva (1.4); the relative proportions of śukra and ārtava determine the sex of the child (1.5); splitting of śukra and ārtava by vāta gives rise to a multiple birth;<sup>6</sup> disorders of the doṣas cause abnormalities in the child (1.6); the menstrual discharge (rajas), derived from rasa, appears for three days every month; it begins to appear at the age of twelve and diminishes at the age of fifty<sup>7</sup> (1.7); the union of a woman of sixteen and a man of twenty years, who are both healthy, may result in the birth of a strong child;<sup>8</sup> if the ages of the partners are less, the child will be either sickly or short-lived, or conception will not take place (1.8–9);<sup>9</sup> the disorders of śukra and ārtava: caused by vāta, pitta or kapha, caused by blood and called kuṇapa, caused by kapha and vāta and called granthi, caused by blood and pitta and called pūyābha, caused by vāta and pitta and called kṣīṇa, and another type, called malāhvaya; the last type is of two varieties and makes śukra or ārtava smell like either urine or faeces; these disorders are usually curable with difficulty, but the disorder caused by all three doṣas together, i.e., the malāhvaya type, is incurable (1.10–12ab);<sup>10</sup> the treatment of these disorders (1.12cd–16);<sup>11</sup> the characteristics of normal śukra and ārtava (1.17–18ab);<sup>12</sup> the description of a couple fit for procreation (1.18cd–20ab);<sup>13</sup> the characteristic features of a woman in her fertile period (ṛtumatī) (1.20cd–21ab);<sup>14</sup> the closure of the womb after the fertile period (1.21cd–22ab);<sup>15</sup> the process of menstruation (1.22cd–23ab);<sup>16</sup> rules to be observed during the three days of menstruation and on the fourth day (1.23cd–26ab);<sup>17</sup> the fertile period (ṛtu) (1.26cd–27ab);<sup>18</sup> the ritual ensuring conception (putrīyavidhi) (1.27cd–33);<sup>19</sup> rules for sexual intercourse (1.34–35ab);<sup>20</sup> the signs indicating conception (1.35cd–36);<sup>21</sup> the pūṃsavana ritual, which determines the sex of the child to be born, should be performed during the first month of pregnancy, when the embryo is in the kalala stage and its sexual organs are still undeveloped; the description of the ritual, followed by measures to stabilize the embryo (1.37–42);<sup>22</sup> general rules for the behaviour and diet of a pregnant woman (1.43–49ab);<sup>23</sup> the embryo develops from a kalala into a ghana, peśī or arbuda, dependent on its sex (male, female, klība)<sup>24</sup> (1.49cd–50a);<sup>25</sup> the characteristics of a pregnant woman (1.50b–52ab);<sup>26</sup> the longings (śṛaddhā)<sup>27</sup> of a pregnant woman (1.52cd–54ab);<sup>28</sup> the development of the foetus from the third up to the ninth month and onwards; dietary rules for the mother; the treatment of disorders

occurring during the seventh and eighth months of pregnancy (1.54cd–69ab);<sup>29</sup> signs indicating that a male, respectively female child will be born (1.69cd–71); signs indicating the birth of a kl̥b̥a; signs indicating the birth of twins (1.72);<sup>30</sup> the construction of the maternity hut (sūtikāgṛha) (1.73–74ab);<sup>31</sup> signs indicating the approach of delivery (1.74cd–76);<sup>32</sup> the management of labour (1.77–82);<sup>33</sup> the treatment of protracted labour (saṅga) and retention of the placenta (jarāyvapātana) (1.83–89ab);<sup>34</sup> other methods for removing the placenta (aparā) (1.89cd–91);<sup>35</sup> the treatment of the disorder called makkalla (1.92–93ab);<sup>36</sup> the care of the newborn child (1.93cd);<sup>37</sup> the treatment of the new mother (1.94–101).<sup>38</sup>

Chapter two (garbhavyāpad) deals with the following subjects: the general treatment of bleeding and pain during pregnancy (2.1–6ab);<sup>39</sup> the treatment of bleeding during the first three months of pregnancy (2.6cd–9ab);<sup>40</sup> the treatment of miscarriage (garbhapāta) (2.9cd–13);<sup>41</sup> the characteristics of the disorders called upaviṣṭaka and nāgodara (2.14–16);<sup>42</sup> the treatment of these disorders (2.17–18ab);<sup>43</sup> the treatment of līnagarbha (2.18cd–21ab);<sup>44</sup> the treatment of udāvarta during pregnancy (2.21cd–22ab);<sup>45</sup> the signs indicating foetal death (2.22cd–24ab);<sup>46</sup> the treatment of this condition by the administration of drugs, accompanied by mantras (2.24cd–26a); manual extraction of a dead foetus (2.26b–27c); correction of a malposition, followed by manual extraction (2.27d–28);<sup>47</sup> the two types of malposition (mūḍhagarbha) which are called viṣkambha require surgical intervention and the use of sharp instruments (2.29–31ab); the description of surgical techniques for removal of a dead foetus (2.31cd–37);<sup>48</sup> contra-indications, necessitating refusal of treatment (2.38); the management immediately after extraction of the foetus and removal of the placenta (2.39–40);<sup>49</sup> after-treatment during a period up to four months after the intervention (2.41–46);<sup>50</sup> the preparation of balātāila, dear to Dhanvantari, beneficial in puerperal disorders and many other diseases (2.47–52);<sup>51</sup> caesarean section, to be resorted to when the child is still alive after the death of the mother during parturition (2.53);<sup>52</sup> recipes against an imminent miscarriage during the first to tenth months of pregnancy;<sup>53</sup> miscarriage should not be ascribed to the snatching away of the foetus by evil beings (bhūta) (2.61–62).

Chapter three (aṅgavibhāga) deals with the following subjects: the six major (aṅga)<sup>54</sup> and the minor parts (pratyāṅga)<sup>55</sup> of the body (3.1); the qualities of the five mahābhūtas (3.2); the parts of the body derived from each of the five mahābhūtas (3.3–4ab);<sup>56</sup> the entities derived from mother, respectively father (3.4cd–5ab),<sup>57</sup> from cetanā<sup>58</sup> (3.5cd),<sup>59</sup> sātmya (3.6ab),<sup>60</sup> rasa (3.6cd),<sup>61</sup> sattva, rajas and tamas (3.7–8ab);<sup>62</sup> the seven layers of the skin, derived from blood (3.8–9ab);<sup>63</sup> the seven kalās (3.9cd–10c);<sup>64</sup> the seven receptacles (āśaya) (3.10cd–11ab);<sup>65</sup> an eighth receptacle, found in: women, is the garbhāśaya; it is situated between the pittāśaya and pakvāśaya (3.11cd);<sup>66</sup> the viscera (koṣṭhāṅgāni) consist of the heart, kloman, phupphusa, liver, spleen, uṇḍuka, the two kidneys, navel, ḍimbha, intestines, and bladder (3.12);<sup>67</sup> the ten seats of life (jīvitadhāman) are the head, frenulum linguae (rasanabandhana), throat, blood, heart, navel, bladder, semen, ojas, and ano-rectal region (guda) (3.13);<sup>68</sup> the body

possesses sixteen jālas<sup>69</sup> and an equal number of kaṇḍarās,<sup>70</sup> six kūrcas,<sup>71</sup> seven sīvanīs,<sup>72</sup> four māṃsarajjus,<sup>73</sup> fourteen asthisamghātas,<sup>74</sup> and eighteen sīmantas<sup>75</sup> (3.14–15); the number of bones, teeth and nails included, is three hundred and sixty, but their number is three hundred according to Dhanvantari;<sup>76</sup> there are two hundred and ten junctures (sandhi), but their number is two thousand according to Atri's son (3.16–17ab);<sup>77</sup> the number of snāyus is nine hundred;<sup>78</sup> the number of muscles (peśī) is five hundred in men; women have twenty more of them<sup>79</sup> (3.17cd–18ab); there are ten chief sirās, connected with the heart, which carry rasa and ojas to all parts of the body; they split up repeatedly into a number of seven hundred branches (3.18cd–20ab);<sup>80</sup> the number of sirās in the various body parts; the sirās that should not be used for bloodletting (3.20cd–34);<sup>81</sup> one-fourth out of the seven hundred sirās carry blood mixed with vāta; an equal number carry blood mixed with pitta, blood mixed with kapha, and pure blood respectively (3.35);<sup>82</sup> the characteristics of these four types of sirā (3.36cd–38);<sup>83</sup> the twenty-four dhamanīs, attached to the navel (3.39–40ab);<sup>84</sup> the nine channels (srotas)<sup>85</sup> and the three additional ones in women (3.40cd–41ab); the thirteen internal channels (antaḥsrotas), which are seats of life (jīvitāyatana): one for prāṇa, one for each of the seven dhātus, one for each of the three main waste products (mala), one for water, and one for food (3.41cd–42);<sup>86</sup> the characteristics of these channels (3.43);<sup>87</sup> causes of corruption of the channels (3.44);<sup>88</sup> the characteristics of corruption of the channels (srotoduṣṭi) (3.45);<sup>89</sup> the minute openings of the channels provide the body with rasa (3.45); the symptoms of injury (vyadha) to the channels and its treatment (3.47–48);<sup>90</sup> the kind of pitta called pācaka digests the food; this pācaka pitta is, in Ātreya's opinion, identical with the heat (ūṣman) of the doṣas, dhātus, malas, etc. (3.49); its seat is the grahaṇī, but, in Dhanvantari's opinion, it is the pittadharā kalā; its location and functions; its close association with the digestive fire; digestion of the food by the digestive fire as a crucial process leading to nourishment of the dhātus (3.50–54);<sup>91</sup> the process of digestion and its stages (3.55–58);<sup>92</sup> the fires (ūṣman) of the five mahābhūtas digest the respective fractions of the food (3.59);<sup>93</sup> when digested, these fractions nourish the corresponding components of the body (3.60);<sup>94</sup> the digested food is separated into a waste (kiṭṭa) and an essential (sāra) portion; the transparent (accha) part of kiṭṭa becomes urine, the inspissated (ghana) part becomes faeces (3.61);<sup>95</sup> sāra is further transformed under the influence of the fires of the seven bodily elements (3.62ab); the successive transformation of the seven bodily elements (3.62cd–63ab);<sup>96</sup> the seven waste products of the seven bodily elements (3.63cd–64ab);<sup>97</sup> the essential parts (prasāda) and the waste products are produced only by digestion (pāka) (3.64cd); the complete series of transformations of the bodily elements, from ingested food to śukra, takes one day; some adhere to a period of six days, others again to a period of one month (3.65–66); aphrodisiacs (vṛṣya), due to their specific action (prabhāva), produce semen immediately; other types of drugs often show their effect within a day and a night (3.67); vyāna makes the rasa circulate throughout the body (3.68);<sup>98</sup> a disorder arises at a place where the flow of rasa is obstructed; in the same manner, excitation of the doṣas occurs at a particular location (3.69–70ab);<sup>99</sup> the digestive fire

is the most important among the bodily fires; it should be protected with great care, since all the other fires are dependent on it (3.70cd–72);<sup>100</sup> the digestive fire is steady (sama) when the samāna stays in its own seat, unsteady (viṣama) when the samāna leaves its pathway; it becomes very active (tīkṣṇa) by the association of samāna with pitta, sluggish (manda) by the association of samāna with kapha (3.73); thus, the fire is of four types: sama, viṣama, tīkṣṇa and manda (3.74ab); the characteristic features of these four types (3.74cd–76);<sup>101</sup> the three types of strength (bala): sahaja, kālaja and yuktikṛta (3.77–78);<sup>102</sup> the three types of country: jāṅgala, ānūpa and sādharmaṇa (3.79);<sup>103</sup> the quantities of the bodily constituents (3.80–82);<sup>104</sup> the origin of the seven kinds of constitution (prakṛti) (3.83): dominated by vāta (3.84–89), pitta (3.90–95), kapha (3.96–103), two doṣas, or all three doṣas (3.104ab);<sup>105</sup> the typology according to the three guṇas (3.104cd);<sup>106</sup> the three main stages of the human life cycle (vayas) (3.105);<sup>107</sup> the ideal height of the human body (3.106ab); the eight censured (nindita) types of persons (3.106cd–107ab);<sup>108</sup> auspicious bodily and mental characteristics (3.107cd–116);<sup>109</sup> the sūtra typology (3.117–118);<sup>110</sup> the praiseworthy features of persons with a predominance of sattva, in contrast with the characteristics of persons dominated by rajas or tamas (3.119);<sup>111</sup> features leading to a long span of life (3.120).

Chapter four (marmavibhāga) deals with the marmans.

The subjects are: the total number, namely 107, of the marmans; their number in the various parts of the body: eleven in each leg and arm, three in the abdomen, nine in the chest, fourteen in the back, thirty-seven in neck and head (4.1–2ab);<sup>112</sup> the location of the marmans of legs and arms, their names, and the effects of injury (4.2cd–9); the same concerning the marmans of the trunk (4.10–17ab), back (4.17cd–26ab), neck and head (4.26–37ab);<sup>113</sup> a marman is a place where uneven throbbings (spandana) are found and where pain occurs on pressure; it is a meeting place of muscular tissue (māṃsa), osseous tissue (asthi), snāyus, dhamanīs, sirās and junctures (sandhi); life (jīvita) is dependent on the integrity of the marmans; they are divided into six groups according to their predominant structural element, but they form one whole as seats of the vital breaths (prāṇāyatana) (4.37cd–39);<sup>114</sup> the ten māṃsamarmans, eight asthimarmans, twenty-three snāyumarmans, nine dhamanīmarmans, thirty-seven sirāmarmans, and twenty sandhimarmans (4.40–45ab);<sup>115</sup> some adhere to a partly different classification (4.45cd–46);<sup>116</sup> the effects of injury to each of the six groups of marman (4.47–51); the nineteen marmans which are sadyaḥprāṇahara, the thirty-three which are kālāntaraprāṇahara, the three which are viśalyaghna, the forty-four which are vaikalyakara, and the eight which are ruṣākara; the effects of injury to each of these five groups (4.52–59);<sup>117</sup> the sizes of the marmans (4.60–63a);<sup>118</sup> according to another opinion, the size of the marmans is like that of a sesamum or rice grain (4.63bc);<sup>119</sup> the four groups of sirās, mentioned previously,<sup>120</sup> form part of marmans; injury to these marmans leads therefore to serious disorders, which may end in death (4.63d–66ab); the treatment of injury to these marmans (4.66cd–67); the danger of injury to marmans; treatment with caustics, poisonous substances and cautery should be avoided (4.68–70).

Chapter five (vikṛtivyjñānīya)<sup>121</sup> deals with the following subjects: the importance of knowledge concerning signs foreboding death (rīṣṭa); the definition of a rīṣṭa as a change (vikṛti) of a person's prakṛti;<sup>122</sup> a patient's death is always preceded by the appearance of rīṣṭas (5.1–2 and some additional verses);<sup>123</sup> some distinguish two types of rīṣṭa: permanent (sthāyin) and temporary (asthāyin);<sup>124</sup> the latter type only resembles a rīṣṭa (rīṣṭābhāsa) and disappears again when a serious disorder of the doṣas subsides (5.3–4ab);<sup>125</sup> changes, occurring without any apparent reason, with respect to a patient's outward appearance (rūpa), sense organs (indriya), voice (svara), chāyā and praticchāyā, functions and activities (kriyā), etc., should be regarded as rīṣṭas (5.4cd–5);<sup>126</sup> fatal signs relating to rūpa (5.6–21ab),<sup>127</sup> the indriyas (5.21cd–38ab), svāra (5.38cd–41ab); the characteristics of chāyā and praticchāyā (5.41cd–43);<sup>128</sup> fatal signs relating to praticchāyā (5.44–45); the five varieties of chāyā (5.46–48);<sup>129</sup> the vāyavī chāyā is inauspicious, the other varieties are auspicious (5.49ab);<sup>130</sup> the seven varieties of prabhā; the auspicious and inauspicious varieties (5.49cd–51ab);<sup>131</sup> the distinctive characteristics of varṇa, chāyā and prabhā (5.51cd–53ab);<sup>132</sup> fatal signs relating to kriyā (5.53cd–70ab);<sup>133</sup> fatal signs in particular diseases (5.70cd–116);<sup>134</sup> various fatal signs (5.117–128);<sup>135</sup> a physician should, even when questioned, not inform relatives and friends of the approaching death of a patient (5.129); concluding verses (5.130–132).

Chapter six (dūtādivijñānīya) deals with the following subjects: a messenger (dūta) belonging to the same religious community (pākhaṇḍa), stage of life (āśrama) and social class (varṇa) (as the patient) augurs well; if otherwise, he bodes ill (6.1);<sup>136</sup> characteristics of inauspicious messengers (6.2–16);<sup>137</sup> inauspicious omens on the way to the patient (6.17–23ab);<sup>138</sup> good and bad omens on the way to the patient (6.23cd–27);<sup>139</sup> bad omens observed on entering the patient's house (6.28);<sup>140</sup> auspicious omens of the same group (6.30–39);<sup>141</sup> inauspicious dreams (6.40cd–60);<sup>142</sup> the seven types of dreams (6.61);<sup>143</sup> the effects of dreams, dependent on their type and various circumstances (6.62–65ab);<sup>144</sup> auspicious dreams (6.65cd–71ab);<sup>145</sup> features indicating the recovery of health (6.71cd–73ab).<sup>146</sup>

## Chapter 3

### Nidānasthāna

Chapter one (sarvaroganidāna) deals with: the terms designating disease (1.1);<sup>2</sup> the five means of obtaining knowledge about diseases: nidāna (aetiology), pūrvarūpa (prodromes), rūpa (symptomatology), upaśaya (therapeutic diagnosis) and saṃprāpti (pathogenesis) (1.2);<sup>3</sup> the synonyms of nidāna (1.3a–c);<sup>4</sup> the definition of prāgrūpa (= pūrvarūpa) (1.3d–4);<sup>5</sup> the definition and the synonyms of rūpa (1.5);<sup>6</sup> the definition of upaśaya or sātmya; its opposite is anupaśaya or asātmya (1.6–7);<sup>7</sup> the definition and the synonyms of saṃprāpti (1.8);<sup>8</sup> the five subdivisions of saṃprāpti: saṃkhyā (number), vikalpa (discrimination), prādhānya (predominance), bala (force) and kāla (time); the explanation and illustration of these terms (1.9–11);<sup>9</sup> thus has been proclaimed what is meant by nidāna (1.12ab);<sup>10</sup> all diseases are caused by the excited doṣas; their excitation is brought about by the indulgence in anything that is unwholesome (1.12cd–13ab);<sup>11</sup> these unwholesome things consist of the three kinds of contact (yoga) with the three factors previously mentioned (1.13cd);<sup>12</sup> the causes of excitement of vāta (1.14–15),<sup>13</sup> pitta (1.16),<sup>14</sup> kapha (1.17–18c),<sup>15</sup> two doṣas (1.18d), and all three doṣas together (1.19–23ab);<sup>16</sup> the excited doṣas reach the rasa-carrying vessels, which bring them to the sites where particular diseases are produced (1.23cd–24).

Chapter two (jvaranidāna) deals with: the origin and general features of fever (jvara) (2.1–2);<sup>17</sup> the eight types of fever (2.3a–c);<sup>18</sup> its pathogenesis (2.3cd–6ab);<sup>19</sup> its prodromes (2.6cd–10ab);<sup>20</sup> the symptoms of fever caused by vāta (2.10cd–18ab),<sup>21</sup> pitta (2.18cd–20)<sup>22</sup> and kapha (2.21–22);<sup>23</sup> the periods of time at which a fever begins and increases (2.23ab);<sup>24</sup> causative factors of a particular fever should be regarded as anupaśaya, their opposites as upaśaya (2.23cd);<sup>25</sup> the symptoms of fever by two doṣas in general (2.23ef);<sup>26</sup> the symptoms of fever by vāta and pitta (2.24),<sup>27</sup> vāta and kapha (2.25),<sup>28</sup> kapha and pitta (2.26);<sup>29</sup> the symptoms of fever caused by the three doṣas collectively (saṃnipātajvara),<sup>30</sup> also called abhinyāsa and hṛtaujaṣa (2.27–33);<sup>31</sup> features making a fever incurable or difficult to cure (2.34);<sup>32</sup> fevers in which a burning sensation (dāha) or shivering (śīta) occurs in an early or, respectively, a late stage (2.35–37);<sup>33</sup> the four kinds of exogenous (āgantū) fever: caused by abhigḥāta (trauma), abhiśaṅga, śāpa (curses), and abhicāra (magic); the four varieties of abhigḥāta; vāta corrupts blood in a traumatic fever; the symptoms of a traumatic fever; abhiśaṅga includes possession (āveśa) by a graha, (the smell of) herbs, poisonous substances, anger, fear, grief, and sexual passion; the symptoms of these seven varieties of abhiśaṅga fever; the first three lead to excitement of all three doṣas; anger

leads to excitement of pitta; the last three of the series lead to excitement of vāta; the fevers caused by curses and magic are severe and of the saṃnipāta type; the symptoms of fever caused by magic (2.38–45);<sup>34</sup> fevers may also be classified as bodily (śārīra) and mental (mānasa),<sup>35</sup> saumya and tikṣṇa,<sup>36</sup> antarāśraya (central) and bahirāśraya (peripheral),<sup>37</sup> prākṛta (in agreement with the season) and vaikṛta (disagreeing with the season),<sup>38</sup> curable and incurable,<sup>39</sup> sāma (associated with āma) and nirāma (devoid of āma) (2.46–47ab); the general sense of heat (tāpa) arises in the body first in a bodily, in the mind first in a mental fever (2.47cd);<sup>40</sup> the yogavāhitva of vāta leads to a feeling of coldness (śīta) when this doṣa is associated with kapha, to a burning sensation (dāha) when it is associated with pitta, and to a mixture of these sensations when associated with both (2.48);<sup>41</sup> the symptoms of antar- and bahirvega fevers (2.49);<sup>42</sup> the characteristics of prākṛta and vaikṛta fevers (2.50);<sup>43</sup> the connections among the doṣas, the seasons, and fever (2.51–52);<sup>44</sup> features making a fever curable, respectively incurable (2.53);<sup>45</sup> the features of a fever in the sāma, pacyamāna and jīrṇa (= nirāma or pakva) stages (2.54–56ab);<sup>46</sup> the five types of viṣamajvara: saṃtata, satata, anyedyus, trītyaka, and caturthaka (2.56cd–57); the description of saṃtata fever, which resides particularly in the rasa (2.58–63);<sup>47</sup> general features of the other viṣamajvaras (2.64–69ab);<sup>48</sup> the characteristics of satata, anyedyus and trītyaka, which reside particularly in the blood, muscular tissue, and fatty tissue respectively (2.69cd–70);<sup>49</sup> the three varieties of trītyaka, with a predominant involvement of pitta and vāta, kapha and pitta, or vāta and kapha (2.71);<sup>50</sup> the characteristics of caturthaka, which resides in fatty tissue, bone marrow and osseous tissue, or, according to others, in the bone marrow only;<sup>51</sup> its two varieties, with a predominance of kapha or vāta (2.72–73ab);<sup>52</sup> caturthakaviparyaya (reversed quartan fever), which resides in both bones and bone marrow; its three varieties, each with a predominant involvement of one of the three doṣas (2.73cd–74ab);<sup>53</sup> general pathophysiological features of the viṣamajvaras (2.74cd–76ab);<sup>54</sup> the features indicating subsidence (mokṣa) of a fever (2.76cd–78);<sup>55</sup> the features of relief from fever (2.79).<sup>56</sup>

Chapter three (raktapittakāśanidāna) deals with: the aetiology and pathogenesis of raktapitta (3.1–4ab);<sup>57</sup> the prodromes (3.4cd–7ab);<sup>58</sup> the symptoms of its three types: moving upwards, moving downwards and moving in both directions (3.7cd–8ab);<sup>59</sup> the upwards moving type is curable, because of the predominance of kapha; the general principles of its treatment (3.8cd–10); the downwards moving type is palliable, because vāta is the predominant doṣa; the general principles of its treatment (3.11–12); the type moving in both directions, associated with kapha and vāta, is incurable; the reasons for its incurability (3.13–15);<sup>60</sup> the doṣas involved can be recognized in the same way as in bloodletting by means of phlebotomy;<sup>61</sup> the complications are described in the vikṛtivyūhāna chapter;<sup>62</sup> cough (kāsa), a complication of raktapitta that may become fatal, will now be dealt with (3.16–17ab); cough is of five kinds: brought about by vāta, pitta, kapha, a traumatic lesion (kṣata), and kṣaya;<sup>63</sup> if neglected, all these types lead to kṣaya;<sup>64</sup> they are more serious in character in the mentioned order (3.17cd–18ab);<sup>65</sup> the prodromes (3.18cd–19a);<sup>66</sup> the pathogenesis; the explanation for the occurrence of different syndromes (3.19b–22ab);<sup>67</sup> the symptomatology of cough



caused by vāta (3.22–24ab),<sup>68</sup> pitta (3.24cd–25),<sup>69</sup> kapha (3.26–27ab);<sup>70</sup> the aetiology and symptomatology of cough caused by an injury inside the chest (3.27cd–32ab)<sup>71</sup> and of cough occurring in patients with rājayakṣman (3.32cd–35);<sup>72</sup> the prognosis of cough due to an injury and to kṣaya (3.36);<sup>73</sup> cough due to one doṣa is curable; cough due to two doṣas and cough due to old age are amenable to palliative treatment (3.37);<sup>74</sup> complications arising from neglect (3.38).

Chapter four (śvāsahidhmānidāna) deals with: the general aetiology of respiratory disorders (śvāsa) (4.1–2ab);<sup>75</sup> the five types of śvāsa: kṣudraka, tamaka, chinnaśvāsa, mahāśvāsa, and ūrdhvaśvāsa (4.2cd);<sup>76</sup> the pathogenesis (4.3–4ab);<sup>77</sup> the prodromes (4.4cd–5a);<sup>78</sup> the causes of kṣudraśvāsa, which subsides spontaneously (4.5b–d);<sup>79</sup> the pathogenesis, symptoms and degrees of curability of tamaka (4.6–10);<sup>80</sup> this disease is called pratamaka when it is associated with fever and fainting (mūrchā) (4.11ab);<sup>81</sup> the symptomatology of chinnaśvāsa (4.11cd–13ab);<sup>82</sup> mahāśvāsa (4.13cd–15)<sup>83</sup> and ūrdhvaśvāsa (4.16–17);<sup>84</sup> the prognosis of chinna-, mahā- and ūrdhvaśvāsa (4.18ab);<sup>85</sup> the aetiology, prodromes, number of types, pathogenesis and seat (saṁśraya) of hiccup (hidhmā) are the same as those of śvāsa;<sup>86</sup> five types are distinguished: bhaktodbhavā (produced by the ingestion of foods or drinks), kṣudrā, yamalā, mahatī, and gambhīrā (4.18cd–19c);<sup>87</sup> the causes and symptoms of the annajā (= bhaktodbhavā) (4.19cd–21ab)<sup>88</sup> and kṣudrā types (4.21cd–22);<sup>89</sup> the symptoms of the yamalā type, also called veginī and pariṇāmavatī (4.23–25ab);<sup>90</sup> the symptoms of mahāhidhmā (4.25cd–27)<sup>91</sup> and gambhīrā hidhmā (4.28–29ab);<sup>92</sup> prognostic features (4.29b–30);<sup>93</sup> hiccup and respiratory disorders are more dangerous than other diseases; they appear at the approach of death (4.31).<sup>94</sup>

Chapter five (rājayakṣmānidāna) deals with: the characterization of rājayakṣman as a disease that develops in the wake of many other diseases, and as leading itself to several other disorders; its synonyms: kṣaya, śoṣa, rogarāj (5.1);<sup>95</sup> the explanation of these names (5.2–3);<sup>96</sup> the four causes of rājayakṣman (5.4);<sup>97</sup> the pathogenesis (5.5–6);<sup>98</sup> the prodromes (5.7–13ab);<sup>99</sup> the eleven symptoms (5.13cd–15ab);<sup>100</sup> the complications (5.15cd–18);<sup>101</sup> the pathophysiological processes leading to the wasting character of the disease (5.19–22);<sup>102</sup> types of patients to be accepted or rejected (5.23);<sup>103</sup> the six kinds of disorders of the voice (svarabheda): caused by one doṣa separately, all the doṣas together, kṣaya, and medas (fatty tissue) (5.24a–c);<sup>104</sup> the symptoms of these six types (5.24d–27c);<sup>105</sup> the types caused by all the doṣas and by medas should not be accepted for treatment (5.27cd);<sup>106</sup> anorexia (arocaka) arises from doṣas located in tongue and heart; five types are distinguished: three caused by one doṣa separately, one by all three doṣas, and one by mental affliction (5.28);<sup>107</sup> the symptoms of these five types (5.29);<sup>108</sup> the five types of vomiting (chardi): three caused by one doṣa, one by all three doṣas, and one due to aversion to particular objects of the senses;<sup>109</sup> its pathogenesis (5.30);<sup>110</sup> the prodromes (5.31ab);<sup>111</sup> the symptoms of the five types (5.31cd–37ab);<sup>112</sup> cases of vomiting due to parasites (kṛmi), thirst, āma, and dauhṛda are also caused by the doṣas;<sup>113</sup> the symptoms of vomiting due to parasites (5.37cd–38c);<sup>114</sup> heart diseases (hṛdroga) are of five types and arise from the same causes as gulma (5.

38d–39ab);<sup>115</sup> the symptoms of hṛdroga caused by vāta, pitta, kapha, all three doṣas, and parasites (5.39cd–45ab);<sup>116</sup> the six types of morbid thirst (tṛṣṇā): caused by vāta, pitta, kapha, all three doṣas, deficiency of the rasa (rasakṣaya), and as a complication (upasarga) of other diseases (5.45cd–46a);<sup>117</sup> the general aetiology, pathogenesis and symptomatology (5.46b–49);<sup>118</sup> the symptoms of tṛṣṇā caused by vāta (5.50–51a),<sup>119</sup> pitta (5.51b–d),<sup>120</sup> kapha (5.52–54a),<sup>121</sup> and all three doṣas (5.54b);<sup>122</sup> tṛṣṇā arising from āma is due to obstruction by ingested food and is associated with vāta and pitta (5.54cd);<sup>123</sup> tṛṣṇā in someone who, exhausted by heat, rashly enjoys cold water, arises from pitta (5.55);<sup>124</sup> tṛṣṇā brought about by the abuse of alcohol<sup>125</sup> and an excess of fatty substances also arises from pitta; tṛṣṇā brought about by fatty, heavy, sour and salt foods arises from kapha (5.56);<sup>126</sup> tṛṣṇā brought about by deficiency of the rasa displays the symptoms belonging to rasakṣaya (5.57ab);<sup>127</sup> tṛṣṇā resulting from long-standing diseases such as śoṣa, meha and fever is known as the type arising from upasarga (5.57cd–58).<sup>128</sup>

Chapter six (madātyayādinidāna) deals with: the ten properties of alcoholic drinks (madya); the opposite properties of ojas; the same properties as those found in alcoholic drinks, which produce disorders of the mind, are also present in poisonous substances, where they, due to their strong action, are lethal (6.1–2);<sup>129</sup> the symptoms of the first stage of intoxication (mada) (6.3–4a),<sup>130</sup> of the second stage and the stage intermediate between the second and third (6.4b–6);<sup>131</sup> the symptoms of the third stage (6.7);<sup>132</sup> the bad effects of the consumption of alcoholic drinks (6.8–11ab);<sup>133</sup> persons who do not easily get intoxicated and those liable to intoxication (6.11cd–13);<sup>134</sup> the four kinds of disorders caused by alcohol abuse (madātyaya): with predominance of vāta, pitta, kapha, or all three doṣas (6.14); the symptoms of these four disorders (6.15–20c);<sup>135</sup> two disorders may arise due to resumption of drinking after a period of abstinence or starting to drink another type to which one is not accustomed: dhvaṃsaka and vikṣaya (6.20d–21);<sup>136</sup> the characteristic features of these two disorders (6.22–23ab);<sup>137</sup> someone who stops drinking and regains self-control remains healthy (6.23cd–24ab);<sup>138</sup> persons liable to develop the disorders called mada, murchā and saṃnyāsa, more severe in the mentioned order; their pathogenesis (6.24cd–25);<sup>139</sup> mada arises from each doṣa separately, all three doṣas together, blood, alcoholic drinks, and poisonous substances (6.26ab); the symptoms of these seven types (6.26cd–29);<sup>140</sup> the diagnosis of these disorders should be based on the predominant presence of the symptoms of vāta, etc., blood, etc. (6.30ab); the symptoms of murchā (fainting) due to vāta, pitta, kapha, and all three doṣas (6.30cd–35);<sup>141</sup> the doṣas get appeased spontaneously in mada and murchā, which distinguishes these disorders from saṃnyāsa, which requires treatment (6.36);<sup>142</sup> the features of saṃnyāsa (6.37–39);<sup>143</sup> alcoholic drinks should be used in moderation (6.40); consumed after due consideration of one's strength, constitution, age, etc., an alcoholic drink is like amṛta (6.41).<sup>144</sup>

Chapter seven (arśasāṃ nidānam) deals with: the etymology of arśas (haemorrhoid) (7.1); the doṣas corrupt the skin, muscular tissue and fatty tissue, causing fleshy sprouts

(māmsānkura) to appear in the region of the apāna, which are called haemorrhoids (7.2);<sup>145</sup> they are either congenital (sahotthāna) or produced after birth (janmottarotthāna),<sup>146</sup> dry (śuśka) or exudative (srāvin) (7.3a–c);<sup>147</sup> the description of the ano-rectal region (guda) and its three folds (vali), valled pravāhiṇī, visarjanī and samvaraṇī (7.3d–5);<sup>148</sup> the aetiology of congenital haemorrhoids, which are associated with all the doṣas and therefore incurable, as all diseases deriving from one's parents (kulodbhava) (7.6–7);<sup>149</sup> the characteristics of congenital haemorrhoids (7.8);<sup>150</sup> the other type is of six varieties: brought about by one of the doṣas separately, two doṣas, all three doṣas, or blood (7.9ab);<sup>151</sup> dry haemorrhoids are caused by vāta and kapha, exudative ones by blood and pitta (7.9cd);<sup>152</sup> the general aetiology of haemorrhoids (7.10–15c);<sup>153</sup> the prodromes (7.15cd–20);<sup>154</sup> the pathogenesis (7.21–22);<sup>155</sup> the general symptoms (7.23–28ab);<sup>156</sup> the appearance and symptoms of haemorrhoids caused by vāta (7.28cd–34ab),<sup>157</sup> pitta (7.34cd–37ab),<sup>158</sup> kapha (7.37cd–42ab),<sup>159</sup> all three doṣas (7.42cd),<sup>160</sup> and blood (7.43–45);<sup>161</sup> the aetiology, pathogenesis and symptomatology of udāvarta, the major complication of haemorrhoids; this disorder may also arise in the absence of haemorrhoids (7.46–52);<sup>162</sup> the degrees of curability of haemorrhoids (7.53–55);<sup>163</sup> growths resembling haemorrhoids which occur on the penis, etc., will be described later; growths of the same type may be present in the region of the navel (7.56);<sup>164</sup> the origin of warts (carmakṭā); their appearance, etc., are dependent on the doṣa involved (7.57–58);<sup>165</sup> a physician should make an effort to cure haemorrhoids, since they may lead to the disease called baddhagudodara (7.59).<sup>166</sup>

Chapter eight (atīsāragrahaṇīdoṣanidāna) deals with: the six types of atīsāra (diarrhoea): caused by one doṣa separately, all three doṣas, fear (bhaya), and grief (śoka) (8.1a–c);<sup>167</sup> the aetiology and pathogenesis of diarrhoea (8.1d–4c);<sup>168</sup> the prodromes (8.4d–5c);<sup>169</sup> the symptoms of diarrhoea brought about by vāta (8.5d–7),<sup>170</sup> pitta (8.8–9ab),<sup>171</sup> kapha (8.9b–11c),<sup>172</sup> all three doṣas (8.11d),<sup>173</sup> fear and grief (8.12–13ab);<sup>174</sup> four varieties of diarrhoea: sāma and nirāmaka, sāsrj (accompanied by blood)<sup>175</sup> and nirasra (not accompanied by blood); the characteristics of sāma and nirāma diarrhoea<sup>176</sup> (8.13cd–15ab); grahaṇīdoṣa develops as a sequela of diarrhoea or independently (8.15cd–16ab);<sup>177</sup> the main features of this disease (8.16cd–18);<sup>178</sup> the four types: brought about by one doṣa separately or three doṣas together (8.19ab);<sup>179</sup> the prodromes (8.19cd–20);<sup>180</sup> the general symptomatology (8.21);<sup>181</sup> the symptoms of grahaṇīdoṣa due to vāta (8.22–25ab),<sup>182</sup> pitta (8.25cd–26ab),<sup>183</sup> kapha (8.26cd–29a),<sup>184</sup> and all three doṣas (8.29b);<sup>185</sup> the three disorders of the digestive fire (viṣamāgni, etc.)<sup>186</sup> also belong to grahaṇīdoṣa (8.29cd–30ab); the eight mahāroga (severe diseases), which are difficult to overcome: vātavyādhi, aśmarī, kuṣṭha, meha, udara, bhagandara, arśāṃsi, and grahaṇī (8.30c–f).

Chapter nine (mūtrāghātanidāna) deals with the following subjects: the urinary bladder (basti) and its head (bastiśiras), the penis, hips (kaṭi), testicles and ano-rectal region (pāyu) form an interconnected whole, located in the hollow of the gudāsthī (9.1);<sup>187</sup> the bladder, with its opening facing downwards, is filled from all sides by the subtle pores of the urine-carrying vessels;<sup>188</sup> the doṣas, getting entrance through

these vessels, bring about the twenty kinds of mūtrāghāta (retention of urine)<sup>189</sup> and twenty kinds of prameha, which are difficult to cure (9.2–3); the symptoms of mūtrakṛcchra due to vāta, pitta, kapha, and all the doṣas (9.4–5);<sup>190</sup> the pathogenesis of āsmarī (vesical calculi) (9.6–7c);<sup>191</sup> the prodromes (9.7d–8);<sup>192</sup> the general symptoms (9.9–10);<sup>193</sup> the symptoms of āsmarī due to vāta (9.11–12),<sup>194</sup> pitta (9.13),<sup>195</sup> and kapha<sup>196</sup> (9.14);<sup>197</sup> vesical calculi are more frequent in children and can easily be extracted in them (9.15);<sup>198</sup> the aetiology, pathogenesis and symptomatology of śukrāśmarī, a disorder found in adults (9.16–18c);<sup>199</sup> the nature and clinical features of śarkarā (gravel) (9.18d–19);<sup>200</sup> the aetiology, pathogenesis and symptomatology of vātabasti (9.20–23ab),<sup>201</sup> vātāsthilā (9.23cd–24),<sup>202</sup> vātakuṇḍalikā (9.25–26c),<sup>203</sup> mūtrāṭita (9.26d–27ab),<sup>204</sup> mūtrajāthara (9.27cd–29a),<sup>205</sup> mūtrotsaṅga (9.29–30),<sup>206</sup> mūtragranthi (9.31),<sup>207</sup> mūtraśukra (9.32–33ab),<sup>208</sup> vidvighāta (9.33cd–34),<sup>209</sup> u-śṇavāta (9.35–36),<sup>210</sup> mūtrakṣaya (9.37),<sup>211</sup> and mūtrasāda (9.38–39);<sup>212</sup> thus, the diseases arising when the flow of urine is obstructed have been described; those with an overproduction of urine will be dealt with in the next chapter (9.40).

Chapter ten (pramehanidāna) deals with the following subjects: out of the twenty types of prameha, ten arise from kapha, six from pitta, and four from vāta (10.1a–c);<sup>213</sup> prameha is usually caused by foods and drinks which lead to an increase of fatty tissue, urine and kapha (10.1cd–3);<sup>214</sup> the pathogenesis (10.4–5);<sup>215</sup> patients with (pra)meha are curable, may be treated palliatively, or should be refused treatment, dependent on the main doṣa involved, the samakriyatā or asamakriyatā (of doṣa and affected dūṣya or dūṣyas), and the mahātyayatā (risks inherent in treatment) (10.6);<sup>216</sup> the common symptoms of all pramehas (10.7ab);<sup>217</sup> the combinations of doṣas and dūṣyas, even if these constituents are related to each other, give rise to various colours, etc., of the urine, which makes it possible to describe several types (10.7cd–8ab);<sup>218</sup> the ten types of prameha (arising from kapha) and the characteristics of the urine in these disorders: udakameha,<sup>219</sup> ikṣumeha,<sup>220</sup> sāndrameha, surāmeha, piṣṭameha, śukrameha, śikatāmeha, śītameha, śanairmeha, and lālāmeha (10.8cd–13);<sup>221</sup> the six types (arising from pitta) and their characteristics: kṣārameha, nīlameha, kālameha, hāridrameha, mañjiṣṭhāmeha, and raktamedā (10.14–16ab);<sup>222</sup> the four types (arising from vāta) and their characteristics: vasāmeha, majjāmeha, hastimeha, and madhumeha (10.16cd–18c);<sup>223</sup> the two varieties of madhumeha: with excitement of vāta due to decline of bodily elements (dhātukṣaya) and due to covering of the pathway of vāta by (the other) doṣas (10.18d–19ab);<sup>224</sup> the characteristics of the second variety (10.19cd–20ab);<sup>225</sup> all kinds of prameha develop, if neglected, into madhumeha (10.20cd); all cases of prameha in which the urine is sweet as honey are regarded as madhumeha (10.21);<sup>226</sup> the complications of prameha arising from kapha, pitta or vāta (10.22–24);<sup>227</sup> the ten piṭikās (boils), which may develop in the regions where junctures and marmans are found and in fleshy parts, when prameha is neglected (10.25–26);<sup>228</sup> the characteristics of nine of these ten types: śarāvikā, kacchapikā, jālinī, vinatā, alajī, masūrikā, sarṣapikā, putrinī, and vidārikā; the tenth, vidradhī, will be described in the next chapter (10.27–34c);<sup>229</sup> the first three, along with putrinī and vidārī, are hard to resist, because of their abundance of fatty tissue; the other

ones, with a predominance of pitta, are resistable, because they arise from a small amount of fatty tissue (10.34cd–35);<sup>230</sup> the doṣa involved is dependent on the type of meha present (10.36ab);<sup>231</sup> these pīṭikās also occur without the presence of prameha, when the fatty tissue is corrupted, but their specific characteristics are not easily recognizable in such cases (10.36c–f);<sup>232</sup> patients passing urine of a turmeric yellow or red colour should not be diagnosed as suffering from prameha, but from raktapitta, if the prodromes of prameha have not appeared (10.37);<sup>233</sup> the prodromes of prameha (10.38–39);<sup>234</sup> cases of prameha in which it is difficult to determine which is the main doṣa involved (10.40);<sup>235</sup> criteria for the determination of the degree of curability of prameha (10.41).<sup>236</sup>

Chapter eleven (vidradhivṛddhigulmanidāna) deals with the following subjects: the aetiology and pathogenesis of abscesses (vidradhi);<sup>237</sup> six types are distinguished: arising from one doṣa separately, all three doṣas, blood, and a trauma (kṣata) (11.1–3);<sup>238</sup> general features and locations of external (bāhya) and internal (āntara) abscesses (11.4–6a);<sup>239</sup> the characteristics of abscesses brought about by vāta, pitta, kapha, and all the doṣas collectively (11.6b–9ab);<sup>240</sup> the features already mentioned enable a physician to determine whether the abscess is of the internal or external type (11.9cd); the characteristics of an abscess caused by blood;<sup>241</sup> this abscess is usually of the external variety, but it is internal in women (11.10); the characteristics of an abscess of traumatic origin (11.11–12ab);<sup>242</sup> the complications; these depend on the site of the abscess (11.12cd–16ab);<sup>243</sup> the āma (unripe), pakva (ripe) and vidagdha (overripe) stages in the formation of abscesses are similar to the corresponding stages of śōpha (11.16cd);<sup>244</sup> abscesses above the umbilical region drain their contents by way of the mouth, those below the navel by way of the anus (11.17a–c);<sup>245</sup> the doṣa(s) involved can be recognized by means of the exudate, in the same way as in ulcers (11.17d–18a); degrees of curability of abscesses (11.18–19ab);<sup>246</sup> abscesses of the breast in females (11.19cd–21ab);<sup>247</sup> the pathogenesis of vṛddhi (enlargement of the scrotum); its seven types: arising from each doṣa separately, blood, fatty tissue, urine, and the intestines; the last two are actually caused by vāta (11.21cd–23);<sup>248</sup> the symptoms of the first five types (11.24–26ab);<sup>249</sup> the causes and symptoms of vṛddhi brought about by urine (11.26cd–27);<sup>250</sup> the causes, pathogenesis and symptoms of vṛddhi brought about by the intestines; it resembles vṛddhi due to vāta and is incurable (11.28–31);<sup>251</sup> the eight types of gulma: caused by one doṣa, a combination of two doṣas, all three doṣas, and a disorder (doṣa) of ārtava in women (11.32–33ab);<sup>252</sup> the aetiology, pathogenesis and general appearance of gulma (11.33cd–38);<sup>253</sup> the aetiology, pathogenesis, appearance and symptomatology of gulma caused by vāta (11.39–44ab);<sup>254</sup> the symptoms of gulma caused by pitta (11.44cd–45);<sup>255</sup> kapha (11.46–47ab);<sup>256</sup> two doṣas,<sup>257</sup> and the three doṣas; the last type is incurable (11.47cd–49a);<sup>258</sup> the aetiology and symptomatology of raktagulma, which occurs in women only and resembles pregnancy in some respects (11.49–55);<sup>259</sup> the differences between gulma and vidradhi (11.56–57);<sup>260</sup> the differences between gulma located inside and outside the viscera (11.58–59); the characteristics of ānāha (11.60);<sup>261</sup> aṣṭhīlā<sup>262</sup> and pratyaṣṭhīlā<sup>263</sup> (11.61), tūnī and pratūnī (11.62);<sup>264</sup> the prodromes of gulma (11.63).<sup>265</sup>





outward characteristics; their number is five; their names are: kakeruka, makeruka, sausrāḍa, sulūna, and leliha; the symptoms they produce (14.53–56).<sup>357</sup>

Chapter fifteen (vātavyādhinidāna) deals with the following subjects: the importance of vāta (15.1–3ab);<sup>358</sup> the actions of vāta, its five kinds, their seats, etc., have already been described in the doṣajijñāna chapter;<sup>359</sup> the causes and characteristics of abnormalities due to vāta will be described now (15.3cd–5ab); the general causes and features of excitement of vāta (15.5cd–6);<sup>360</sup> the symptoms produced by excited vāta localized in the pakvāśaya (15.7–8ab),<sup>361</sup> āmāśaya (15.8cd–9ab),<sup>362</sup> sense organs (15.9c),<sup>363</sup> skin (15.9d),<sup>364</sup> blood (15.10),<sup>365</sup> muscular and fatty tissues (15.11),<sup>366</sup> bones (15.12ab),<sup>367</sup> marrow (15.12cd),<sup>368</sup> semen (15.13a–c),<sup>369</sup> sirās<sup>370</sup> and snāyus<sup>371</sup> (15.13cd–14ab), junctures (15.14cd–15ab),<sup>372</sup> and whole body (15.15cd–16ab);<sup>373</sup> the features of ākṣepaka (15.16cd–17ab),<sup>374</sup> apatantraka or apātāna (15.17cd–21),<sup>375</sup> antarāyāma (15.22–24c),<sup>376</sup> bahirāyāma (15.24d–26),<sup>377</sup> vranāyāma (15.27–28ab);<sup>378</sup> a patient with ākṣepaka feels well again when the impulse (vega) has passed off (15.28cd);<sup>379</sup> the features of hanusraṃsa (15.29–30),<sup>380</sup> jihvāstambha (15.31),<sup>381</sup> ardita,<sup>382</sup> called ekāyāma<sup>383</sup> by others (15.32–37ab), sirāgraha (15.37cd–38ab),<sup>384</sup> ekāṅgaroga, also called pakṣavadha,<sup>385</sup> and sarvāṅgaroga<sup>386</sup> (15.38cd–41),<sup>387</sup> daṇḍaka (15.42),<sup>388</sup> avabāhuka (15.43),<sup>389</sup> viśvācī (15.44),<sup>390</sup> khañja<sup>391</sup> and pañgu<sup>392</sup> (15.45), kalāyakhañja (15.46),<sup>393</sup> ūrustambha,<sup>394</sup> called ādhyavāta by others<sup>395</sup> (15.47–51),<sup>396</sup> kroṣṭukaśīrṣa (15.52),<sup>397</sup> vātakantaka (15.53),<sup>398</sup> gṛdhrasī (15.54),<sup>399</sup> khallī (15.55ab),<sup>400</sup> pādahaṛṣa (15.55cd–56ab),<sup>401</sup> and pādādāha (15.56cd–57).<sup>402</sup>

Chapter sixteen (vātaṣoṇitanidāna) deals with: the aetiology, pathogenesis and some general features of the disease called ādhyaroga, khuḍa, vātabalāsa, or vātaṣoṇita (16.1–5ab);<sup>403</sup> the prodromes (16.5d–7ab);<sup>404</sup> the general features (16.7cd–8ab);<sup>405</sup> the symptoms of the uttāna and gambhīra types (16.8cd–11);<sup>406</sup> the symptoms of vātaṣoṇita with predominance of vāta, blood, pitta, kapha, two doṣas, and all three doṣas (16.12–16);<sup>407</sup> degrees of curability (16.17);<sup>408</sup> the general features of vāta when covered (āvrta) by other bodily constituents (16.18);<sup>409</sup> the causes of corruption of prāṇa and the disorders resulting from this condition (16.19–20);<sup>410</sup> the same with respect to udāna (16.21–22),<sup>411</sup> vyāna (16.23–25ab),<sup>412</sup> samāna (16.25cd–26),<sup>413</sup> and apāna (16.27–28);<sup>414</sup> the characteristic signs of vāta when it is sāma and nirāma (16.29–30); the symptoms appearing when vāta is covered by pitta (16.31cd–32ab),<sup>415</sup> kapha (16.32cd–33ab),<sup>416</sup> blood (16.33cd–34ab),<sup>417</sup> muscular tissue (16.34cd–35ab),<sup>418</sup> fatty tissue (16.35cd–36ab),<sup>419</sup> osseous tissue (16.36cd–37ab),<sup>420</sup> bone marrow (16.37cd–38ab),<sup>421</sup> semen (16.38cd),<sup>422</sup> ingested food (16.39ab),<sup>423</sup> urine<sup>424</sup> or faeces<sup>425</sup> (16.39cd–41ab), and all the tissues together (16.41cd–42ab); the symptoms appearing when prāṇa, udāna, etc., are covered by pitta (16.42cd–45) or kapha (16.46–49ab);<sup>426</sup> these are the twenty-two kinds of covering (āvaraṇa) of vāta (16.49cd);<sup>427</sup> prāṇa and the other kinds of vāta may cover each other; these coverings are twenty in number (16.50); the symptoms appearing when udāna is covered by prāṇa and prāṇa by udāna (16.51–52ab);<sup>428</sup> the other types of āvaraṇa should be diagnosed by observing the signs indicating increase or decrease of the



actions of the different kinds of vāta (16.52cd–53ab);<sup>429</sup> all kinds of combinations of specific types of āvaraṇa may occur, in several gradations; all these syndromes should be diagnosed carefully (16.53cd–56ab);<sup>430</sup> prāṇa is specifically connected with life and udāna with strength (16.56cd–57ab);<sup>431</sup> unknown types of āvaraṇa, and those known which have persisted for more than a year, are either difficult to cure or incurable (16.57cd–58ab);<sup>432</sup> the complications that occur when āvaraṇa is neglected (16.58cd–59).<sup>433</sup>

## Chapter 4

### Cikitsitasthāna

Chapter one (jvaracikitsita) is concerned with the treatment of fevers (jvara).

The subjects dealt with are: reducing measures (laṅghana) (1.1–3);<sup>2</sup> emetics (1.4–8);<sup>3</sup> the importance of reducing measures (1.9–10); indications for the drinking of warm water (1.11–13);<sup>4</sup> contra-indications (1.14–15ab);<sup>5</sup> the recipe of a cooled down decoction (1.15cd–16ab);<sup>6</sup> everything that is opposed to pitta (pittaviruddha) should be avoided in fevers (1.16cd–17); drugs should not be prescribed in the immature (āma) stage of a fever (1.18–19ab);<sup>7</sup> indications for sudation (1.19cd–21ab);<sup>8</sup> the order of particular types of treatment in fevers (1.21cd–22ab);<sup>9</sup> types of fever which do not require reducing, but, instead, appeasing (śamana) measures (1.22cd–23ab);<sup>10</sup> signs indicating whether or not the reducing measures have been adequate (1.23cd–24ab);<sup>11</sup> next, after proper reducing treatment, a medicated peyā should be administered (1.24cd–29);<sup>12</sup> cases in which, instead of a peyā, a yavagū is more suitable (1.30–34ab); a medicated broth or yūṣa may also be prescribed (1.34cd);<sup>13</sup> alternative preparations when a peyā is contra-indicated (1.35–38); when the doṣas have become free from āma, a kaṣāya may be administered (1.39);<sup>14</sup> such a kaṣāya should be bitter when pitta predominates, and astringent in fevers with predominance of kapha (1.40–41); a number of opinions on the proper time for the prescription of drugs (1.42);<sup>15</sup> contra-indications (1.43–44ab);<sup>16</sup> indications (1.44cd–45ab);<sup>17</sup> recipes for kaṣāyas (1.45cd–55ab);<sup>18</sup> the formula of drākṣādiphāṇṭa (1.55cd–58);<sup>19</sup> more recipes for kaṣāyas (1.59–69); after digestion of the drugs, one should prescribe a peyā, etc., or a yūṣa (1.70–72ab); suitable foods and drinks, medicated broths (1.72cd–81ab); next, after the kaṣāyas, and after a suitable regimen for ten days, a medicated ghee should be prescribed; indications<sup>20</sup> and contra-indications;<sup>21</sup> the importance of ghee and its actions (1.81cd–89);<sup>22</sup> pippalyādighṛta (1.90–91);<sup>23</sup> various other ghees (1.92–94);<sup>24</sup> after digestion of the ghee, the patient should eat a mixture of boiled rice and meat broth (māṃsarasaudana) (1.95); yūṣas are beneficial in fevers by kapha and pitta, not in those by vāta (1.96–97ab); rules for purificatory treatment when the fever does not subside, in spite of treatment (1.97cd–105ab);<sup>25</sup> weakened patients, not fit for purificatory treatment, should drink medicated milk or a nirūha should be administered (1.105cd–106ab);<sup>26</sup> recipes for medicated milk preparations (1.106cd–115);<sup>27</sup> enemas (1.116–125ab);<sup>28</sup> errhines (1.125cd–126);<sup>29</sup> dhūmas and gaṇḍūṣas (1.127–128);<sup>30</sup> applications on the skin (abhyāṅga, pariṣeka, etc.) and for the eyes (1.129–142);<sup>31</sup> various therapeutic measures (1.143–147);<sup>32</sup> restoration of the equilibrium of the doṣas (in saṃnipātajvara) (1.148);<sup>33</sup> the dangerous swelling at the root of the ear, developing at the end of a saṃnipātajvara; its treatment (1.149–150);<sup>34</sup>

phlebotomy at the arms is necessary if the fever does not subside (1.151);<sup>35</sup> the described treatments should also be used in cases of *viṣama jvara* (1.152); recipes and various therapeutic measures to be adopted in cases of *viṣama jvara* (1.153–167);<sup>36</sup> the treatment of exogenous fevers (1.168–173);<sup>37</sup> things to be avoided by fever patients (1.174–175);<sup>38</sup> things beneficial to patients suffering from fever (1.177).<sup>39</sup>

Chapter two (*raktapittacikitsita*) is concerned with the treatment of haemorrhagic syndromes (*raktapitta*).

The subjects dealt with are: the degrees of curability of *raktapitta* (2.1–3ab);<sup>40</sup> indications for either *laṅghana* or *bṛṃphaṇa* measures, followed by either *śodhana* or *śamana* (2.3cd–7);<sup>41</sup> in cases of upwards moving *raktapitta*, a *tarpaṇa* should be prescribed, in downwards moving *raktapitta* a *peyā* (2.8ab);<sup>42</sup> indications and contra-indications for stopping the bleeding (2.8cd–9ab);<sup>43</sup> purgatives (2.9cd–11);<sup>44</sup> emetics (2.12–13a);<sup>45</sup> after purification (with purgatives or emetics), a *mantha* or *peyā* should be prescribed (2.13b–d);<sup>46</sup> recipes for *manthas* and *peyās* (2.14–18);<sup>47</sup> recipes for a *yavāgū* and a broth (*māṃsarasa*) (2.19–20);<sup>48</sup> grains, pulses and vegetables to be recommended (2.21);<sup>49</sup> drinks (2.22);<sup>50</sup> meat preparations (2.23–24ab);<sup>51</sup> anything that may give rise to *raktapitta* should be avoided (2.24cd);<sup>52</sup> recipes, mostly consisting of various types of *kaṣāya* (2.25–35ab);<sup>53</sup> medicated milk preparations (2.35cd–40ab);<sup>54</sup> the treatments recommended in *raktātisāra* and bleeding haemorrhoids may also be adopted (2.40cd);<sup>55</sup> after using medicated milk preparations, the patient should drink milk (2.41ab);<sup>56</sup> the treatment with *kaṣāyas* should be followed by the administration of medicated ghees (2.41cd);<sup>57</sup> the recipes of *vṛṣaghṛta* (2.42–44ab),<sup>58</sup> *palāśaghṛta*,<sup>59</sup> and *trāyamānāghṛta*<sup>60</sup> (2.44cd–45ab);<sup>61</sup> four electuaries containing a caustic (2.45cd–46);<sup>62</sup> bleeding from the ano-rectal region requires treatment with enemas (2.47ab);<sup>63</sup> *errhines* to be used in nose bleeds (2.47cd–49ab);<sup>64</sup> applications on the skin (*pradeha*, *abhyāṅga*, etc.) (2.49cd);<sup>65</sup> the therapeutic measures against fever by *pitta* and against *kṣata kṣīṇa* are also beneficial in cases of *raktapitta* (2.50).<sup>66</sup>

Chapter three (*kāśacikitsita*) is about the treatment of cough (*kāśa*).

The subjects dealt with are: general measures to be adopted in the treatment of *kāśa* due to *vāta* (3.1–3ab);<sup>67</sup> specific prescriptions (3.3cd–25ab);<sup>68</sup> prescriptions against *kāśa* due to *pitta* (3.25cd–40);<sup>69</sup> *kapha* (3.41–55);<sup>70</sup> *vāta* and *kapha* (3.56–57ab);<sup>71</sup> prescriptions against *kāśa* in general (3.57cd–58);<sup>72</sup> the formulae of *kaṇṭakārighṛta* (3.59–63ab)<sup>73</sup> and *vyāghrīleha* (3.63cd–67ab); *dhūmas* against *kāśa* due to *kapha* (3.67cd)<sup>74</sup> and *vāta* in combination with *kapha* (3.68–69); *tamaka*, when appearing during *kāśa* caused by *kapha*, should be treated like *kāśa* due to *pitta* (3.70);<sup>75</sup> the treatment of *kāśa* due to a combination of two *doṣas* (3.71–72);<sup>76</sup> the treatment of *kāśa* due to *urāḥkṣata* (3.73–94ab);<sup>77</sup> the formulae of *amṛtaprāśaghṛta* (3.94cd–101);<sup>78</sup> *śvadamṣṭrādighṛta* (3.102–105);<sup>79</sup> *madhukādighṛta* (3.106–107); *dhātvyādighṛta* (3.108–110ab); special rules regarding the use of ghees (3.110cd–113); the formulae of *kṣīṇmāṇḍakaraśāyana*, devised by the *Aśvins* (3.114–118ab);<sup>80</sup> *nāgabalarāśāyana* (3.118cd–120ab);<sup>81</sup> *nāgabalarāśarpis* (3.120cd–125); some rules for the treatment of *kṣata kāśa* (3.126); the formulae of *agastyaharītākī*, devised

by Agastya (3.127–132),<sup>82</sup> vasiṣṭhaharītakī, devised by Vasiṣṭha (3.133–141ab),<sup>83</sup> śāḍavacūrṇa (3.141cd–144ab), and another śāḍava (3.144cd–146);<sup>84</sup> the treatments for (rāja)yakṣman are also useful in kṣatakāsa (3.147ab); dhūmas to be employed when the injury (kṣata) in the chest, occurring in cases of kṣatakāsa, has healed, but kapha has increased (3.147cd–151ab);<sup>85</sup> the treatment of kāsa due to kṣaya (3.151cd–158);<sup>86</sup> the formulae of cavikāḍighṛta (3.159–161), kāsamardādigṛta (3.162–163),<sup>87</sup> vṛṣādigṛta (3.164); two more medicated ghees (3.165–166ab);<sup>88</sup> the actions of these ghees (3.166cd–167ab);<sup>89</sup> the formula of harītakīleha (3.167cd–169ab);<sup>90</sup> electuaries (3.169cd–171);<sup>91</sup> some cūrṇas (3.172–173);<sup>92</sup> various preparations (3.174–177);<sup>93</sup> prescriptions against kṣatakāsa and (rāja)yakṣman that can also be used against kṣayakāsa (3.178–179);<sup>94</sup> a dreadful disease arising from all the doṣas (3.180).<sup>95</sup>

Chapter four (śvāsahidhmāciksita) is concerned with the treatment of respiratory disorders (śvāsa) and hiccup (hidhmā).

The subjects dealt with are: the aetiology of śvāsa and hidhmā are similar; both disorders should therefore be treated in the same way;<sup>96</sup> sudation should be applied first, followed by oleation; these measures liquefy kapha, which then goes to the koṣṭha, whence it can be expelled; vāta is normalized by the same measures (4.1–3ab);<sup>97</sup> emesis<sup>98</sup> and purgation<sup>99</sup> (4.3cd–9); fumigation and the inhalation of medicinal smoke (dhūmapāna) (4.10–14ab);<sup>100</sup> the importance of sudation (4.14cd–16a);<sup>101</sup> āma, if present, should be treated properly (4.16b);<sup>102</sup> causes of an increase of vāta, its effects, and the treatment to be employed (4.16cd–18);<sup>103</sup> particular types of śvāsa and hidhmā should be treated with sweet and oleaginous substances which are cold in potency (4.19);<sup>104</sup> beneficial broths and yūṣas (4.20–22);<sup>105</sup> peyās (4.23),<sup>106</sup> kaṣāyas (4.24–25ab),<sup>107</sup> articles of diet (4.25cd–28ab);<sup>108</sup> useful drinks when the patient is thirsty (4.28cd–29ab);<sup>109</sup> a medicated takra (4.29cd–30); other drinks (4.31–32);<sup>110</sup> recipes against śvāsa and hidhmā due to a combination of two doṣas (4.33–36); electuaries (4.37–43ab);<sup>111</sup> the formula of jīvantyādicūrṇa (4.43cd–45);<sup>112</sup> another cūrṇa (4.46);<sup>113</sup> errhines (4.47–50);<sup>114</sup> medicated ghees (4.51–52ab);<sup>115</sup> tejovatyādigṛta (4.52cd–55ab);<sup>116</sup> dhānvantara-, vṛṣa-, dādhika-, and hapuṣādigṛta are also useful (4.55cd–56ab);<sup>117</sup> treatments causing mental agitation (4.56cd–57ab);<sup>118</sup> any treatment subduing kapha and vāta may be adopted (4.57cd–58ab);<sup>119</sup> measures that are śamana and bṛṇhaṇa are preferable to those that are karṣaṇa (4.58cd–59);<sup>120</sup> kāsa, śvāsa, kṣaya, chardi and hidhmā may all be treated in the same way (4.60).

Chapter five (rājayakṣmādiciksita) is concerned with the treatment of rājayakṣman and associated disorders.

The subjects dealt with are: emesis and purgation in cases of rājayakṣman (5.1–4ab);<sup>121</sup> beneficial articles of diet, in particular various kinds of meat (5.4cd–11);<sup>122</sup> alcoholic and other fluids (5.12–14ab);<sup>123</sup> medicated ghees (5.14cd–21);<sup>124</sup> śaṭpalagṛta (5.22–23);<sup>125</sup> other medicated ghees (5.24–25ab); māṃsasarpis (5.25cd–27); elādisarpigūḍa (5.28–32); the sarpigūḍa recipes employed in the treatment of kṣata(kāsa) may also be used against kṣaya (= rājayakṣman) (5.33ab); a recipe for a cūrṇa or electuary (5.33cd–34);<sup>126</sup> the treatment of svarasāda (the group of

disorders of the voice) (5.35–46);<sup>127</sup> various prescriptions against arocaka (loss of appetite) (5.47–53);<sup>128</sup> *elādika-* or *samaśarkaracūrṇa* (5.54–55ab);<sup>129</sup> *yavānyādicūṃṣa* (5.55cd–58ab);<sup>130</sup> *tālīśādicūṃṣa* (5.58cd–60);<sup>131</sup> the treatment of *praseka* (excessive salivation) (5.61–63);<sup>132</sup> *pīnasa* (nasal catarrh) and *vamathu* (vomiting) should be treated in the same way as *praseka* (5.64ab);<sup>133</sup> specific treatments for *pīnasa* (5.64cd–65);<sup>134</sup> the treatment of piercing pains (*śūla*) in head, shoulders, and the sides of the chest (5.66–72ab);<sup>135</sup> the treatment of a diarrhoea that is accompanied by mucous matter (*piccha*) (5.72cd–73ab);<sup>136</sup> the importance of preserving the faeces in a patient with *rājayakṣman* whose *dhātus* are depleted (5.73cd–74ab); measures to counteract progress of the disease and to nourish the *dhātus* (5.74cd–82ab);<sup>137</sup> general beneficial measures (5.82cd–84).<sup>138</sup>

Chapter six (*chardihṛdrogaṭṭṣṇācikitsita*) is about the treatment of vomiting (*chardi*), heart diseases (*hṛdroga*), and morbid thirst (*ṭṣṇā*).

The subjects dealt with are: reducing measures (*laṅghana*) and emesis (6.1–2ab), purgative and appeasing (*śamana*) measures (6.2cd–3) in *chardi*;<sup>139</sup> general therapeutic measures (6.4–6);<sup>140</sup> the treatment of *chardi* due to *vāta* (6.7–10ab),<sup>141</sup> *pitta* (6.10cd–17ab),<sup>142</sup> *kapha* (6.17cd–21),<sup>143</sup> and other causes (6.22–23ab);<sup>144</sup> *chardi* leads to excitement of *vāta*, due to depletion of the bodily elements (*dhātu*); for that reason, *stambhana* and *bṛṇhana* measures should be adopted (6.23);<sup>145</sup> persistent vomiting should be treated with *sarpirguḍa* recipes,<sup>146</sup> broths, medicated ghees, such as *kalyāṇaka-*,<sup>147</sup> *tryūṣaṇa-*<sup>148</sup> and *ajīvanaghrta*,<sup>149</sup> medicated milk preparations, and electuaries (6.24);<sup>150</sup> the treatment of *hṛdroga* due to *vāta* (6.25cd–43),<sup>151</sup> *pitta* (6.44–49ab),<sup>152</sup> and *kapha* (6.49cd–55);<sup>153</sup> the treatment of piercing pain (*śūla*) arising after ingesting food, during digestion, and after digestion (6.56–58ab);<sup>154</sup> the treatment of excited *vāta* located in the *āmāśaya* (6.58cd–59ab);<sup>155</sup> the treatment of *hṛdroga* due to parasites (6.59cd);<sup>156</sup> the general treatment of *ṭṣṇā* (6.60–67);<sup>157</sup> the treatment of *ṭṣṇā* due to *vāta* (6.68),<sup>158</sup> *pitta* (6.69–72ab),<sup>159</sup> *kapha* (6.72cd–74),<sup>160</sup> *āma* (6.75),<sup>161</sup> fasting (*annātyaya*) (6.76ab),<sup>162</sup> fatigue (6.76cd),<sup>163</sup> exposure to the heat of the sun (6.77cd–78ab),<sup>164</sup> alcoholic drinks (6.78cd),<sup>165</sup> oleation (6.79),<sup>166</sup> a high-fat meal (6.80ab),<sup>167</sup> heavy foods (6.80cd),<sup>168</sup> and *kṣaya* (6.81ab);<sup>169</sup> the treatment of thirst in lean, weak and dry patients (6.81cd),<sup>170</sup> in those with upwards moving *vāta* (6.82ab), those suffering from long-standing diseases (*rogopasarga*) (6.82cd–83ab), and those who are emaciated by earlier diseases (6.83cd–85).<sup>171</sup>

Chapter seven (*madātyayādicikitsita*) is concerned with alcohol abuse (*madātyaya*), the disorders caused by it, and some related syndromes.

The subjects dealt with are: the *doṣa* to be treated first in cases of *madātyaya* (7.1–2ab);<sup>172</sup> a disease caused by the improper use of a particular alcoholic drink is relieved by that same drink (7.2cd–3ab);<sup>173</sup> since alcoholic drinks are similar to poisons, another poison is required in counteracting their effects (7.3cd–4ab);<sup>174</sup> the pathogenesis of intoxication (*mada*) and its accompanying symptoms;<sup>175</sup> the proper circumstances for alleviating these complaints by the same drink that caused them (7.4cd–7);<sup>176</sup> the explanation of this effect (7.8–9);<sup>177</sup> *pānātyaya* (= *madātyaya*) should be treated dur-

ing seven or eight days; the reason for this (7.10–11); the treatment of madātyaya due to vāta (7.12–19ab),<sup>178</sup> pitta, combinations of pitta and kapha, vāta, or blood (7.19cd–33ab),<sup>179</sup> and kapha (7.33cd–43ab);<sup>180</sup> the treatment of the ten varieties of (madātyaya due to) saṃnipāta (7.43cd–44ab);<sup>181</sup> a pānaka against all types of madātyaya (7.44cd–46ab);<sup>182</sup> in refractory cases of madātyaya, milk is beneficial, because its properties are similar to those of ojas and opposite to those of alcohol; after this treatment with milk, the patient should consume only small quantities of alcoholic drinks, in order to prevent the development of vikṣaya and dhvaṃsaka (7.47cd–51);<sup>183</sup> the treatment of these two disorders (7.52);<sup>184</sup> the proper way of enjoying alcoholic drinks does not result in disease (7.53);<sup>185</sup> a eulogy of alcoholic beverages (7.54–67);<sup>186</sup> diseases arising from medas, vāta and kapha do not occur in those drinking judiciously (7.68); alcoholic drinks are to be avoided in particular diseases, with the exception of those drinks which are prepared from various drugs (7.69); examples of articles of diet and drugs to be taken along with some alcoholic beverage (7.70–71); medical interventions that can better be endured after drinking (7.72);<sup>187</sup> the advantages of drinking judiciously (7.73–74);<sup>188</sup> the correct practice of consuming alcohol for those who are wealthy (7.75–93);<sup>189</sup> a self-possessed person should stop drinking before his vision and mind are affected (7.94); rules to be observed regarding drinking by those with a constitution dominated by vāta, pitta or kapha (7.95–99);<sup>190</sup> the treatment of mada and murchāya (7.100–109);<sup>191</sup> the treatment of saṃnyāsa (7.110–115).<sup>192</sup>

Chapter eight (arśasāṃ cikitsitam) is about the treatment of haemorrhoids (arśāmsi).

The subjects dealt with are: the treatment of haemorrhoids with caustics or by means of cauterization; after-treatment (8.1–9);<sup>193</sup> the signs of proper treatment (8.10);<sup>194</sup> the treatment required when piercing pains (śūla) occur in the region of the bladder (8.11),<sup>195</sup> or problems arise in the elimination of faeces or urine (8.12–14ab);<sup>196</sup> the treatment of haemorrhoids when caustics cannot be applied and cauterization is impracticable (8.14cd–17);<sup>197</sup> prescriptions (8.18–28ab);<sup>198</sup> blood-letting (8.28cd–30ab);<sup>199</sup> treatment with medicated milk (8.30cd–31ab) and takra or dadhi (8.31cd–49);<sup>200</sup> medicated drinks, peyās, etc. (8.50–51);<sup>201</sup> the mentioned treatments are suitable to patients with loose bowels (bhinnasākr̥t) (8.52a);<sup>202</sup> the treatment of patients with hard bowels (gādhavar̥cas) (8.52b–55ab);<sup>203</sup> prescriptions (8.55cd–62ab);<sup>204</sup> vardhamānapippalī (8.62cd–63ab); a recipe (8.63cd–64ab); the formulae of abhayāriṣṭa (8.64cd–69)<sup>205</sup> and durālabhāriṣṭa (8.70–71);<sup>206</sup> medicated ghees (8.72–79ab);<sup>207</sup> beneficial articles of diet (8.79cd–87ab);<sup>208</sup> signs indicating alleviation (8.87cd–88ab); treatment with enemas (8.88cd–94ab);<sup>209</sup> the treatment of haemorrhoids arising from blood (raktārśas) and associated with either vāta or kapha (8.94cd–104ab);<sup>210</sup> the formulae of two kinds of kuṭajāvaleha (8.104cd–112ab);<sup>211</sup> prescriptions against haemorrhoids due to blood (8.112cd–120) and due to blood and vāta (8.121); prescriptions against bleeding haemorrhoids (8.122–125ab);<sup>212</sup> a picchābasti (8.125cd–129ab);<sup>213</sup> an anuvāsana (8.129cd–130ab);<sup>214</sup> a medicated ghee (8.130cd–133);<sup>215</sup> general measures (8.134);<sup>216</sup> the treatment of udāvarta (8.135–140ab);<sup>217</sup> the formula of kalyāṇakakṣāra (8.140cd–143); all the treatments prescribed against haemorrhoids in patients with hard bowels should be employed

(8.144ab); prescriptions (8.144cd–161); bhallātaka is the best drug for dry,<sup>218</sup> the bark of vatsaka for moist haemorrhoids;<sup>219</sup> kālaśeya (buttermilk) is to be recommended in all types and in all seasons (8.162); general rules (8.163);<sup>220</sup> haemorrhoids, diarrhoea and grahaṇī are related as to their aetiology; these disorders occur in persons with a subdued digestive fire; for that reason it is imperative to protect this fire carefully (8.164).<sup>221</sup>

Chapter nine (atīśārakitsita) is concerned with the treatment of diarrhoea (atīśāra).

The subjects dealt with are: reducing measures (laṅghana) as the method of choice in the initial stage of diarrhoea, even when it arises from vāta (9.1);<sup>222</sup> exceptions to this general rule (9.2ab); the treatment of āmātīśāra due to vāta (9.2cd–16ab);<sup>223</sup> the treatment of the pakva type (9.16cd–24);<sup>224</sup> the treatment of pravāhikā (9.25);<sup>225</sup> the formula of aparājītakhala, to be employed against bimbiśi (= pravāhikā) (9.26–28); prescriptions against disorders caused by faecal depletion (varcaḥkṣaya) (9.29–35ab)<sup>226</sup> and obstruction of vāta (9.35cd–37ab);<sup>227</sup> the treatment of the āma and nirāma types of atīśāra due to vāta; the treatment of pravāhikā and niḥsāraka<sup>228</sup> (9.37cd–48ab); the treatment of gudabhrāṁśa (prolapse of the rectum) (9.48cd–54);<sup>229</sup> the treatment of atīśāra due to pitta (9.55–72ab);<sup>230</sup> a picchābasti against atīśāra due to pitta (9.72cd–76);<sup>231</sup> prescriptions against all types of diarrhoea (9.77);<sup>232</sup> putāpāka recipes (9.78–81);<sup>233</sup> the treatment of atīśāra with loss of blood (raktātīśāra) (9.82–102);<sup>234</sup> the treatment of atīśāra arising from kapha (9.103–110ab);<sup>235</sup> the formulae of kapithāṣṭakacūrṇa (9.110cd–113ab)<sup>236</sup> and dādimāṣṭakacūrṇa (9.113cd–115),<sup>237</sup> to be employed in kaphātīśāra; more prescriptions against kaphātīśāra (9.116–119ab)<sup>238</sup> and kaphātīśāra complicated by excitement of vāta (9.119cd–122);<sup>239</sup> the treatment of atīśāra caused by fear and grief (9.123); the signs indicating recovery from atīśāra (9.124).<sup>240</sup>

Chapter ten (grahaṇīdoṣacikitsita) is about the treatment of grahaṇīdoṣa and some related disorders.

The subjects dealt with are: grahaṇīdoṣa should be treated in the same way as ajīrṇa (10.1ab); the āma present should be made mature by the treatments described (in the chapter) on atīśāra (10.1cd); prescriptions (10.2);<sup>241</sup> the treatment to be adopted when āma is present (10.3);<sup>242</sup> the reasons for treating grahaṇīdoṣa with takra (10.4–5);<sup>243</sup> prescriptions,<sup>244</sup> in particular against grahaṇīdoṣa due to vāta (10.6–32ab),<sup>245</sup> pitta (10.32cd–44),<sup>246</sup> kapha (10.45–56ab);<sup>247</sup> prescriptions stimulating the digestive fire (10.56cd–65ab);<sup>248</sup> pañcakarma therapy is indicated in grahaṇīdoṣa due to all three doṣas (10.65cd);<sup>249</sup> more prescriptions stimulating the digestive fire (10.66–69ab);<sup>250</sup> a prescription that brings the samāna back to its normal pathway and thus activates the digestive fire (10.69cd–71ab);<sup>251</sup> the treatment of hard bowels (10.71cd–72ab);<sup>252</sup> the treatment of weakness of the digestive fire due to various causes (10.72cd–78);<sup>253</sup> the importance of a balanced digestive fire (10.79–80);<sup>254</sup> the pathogenesis and symptomatology of atyagni (hyperactivity of the digestive fire) (10.81–83ab);<sup>255</sup> the treatment of this condition (10.83cd–90);<sup>256</sup> the digestive fire digests (pacati) the food; in the absence of food, it digests the doṣas; when the doṣas have decreased, it digests the dhātus;

when these have decreased, life is cut short (10.91); for these reasons, the fire should always be protected carefully (10.92–93).<sup>257</sup>

Chapter eleven (mūtrāṅghātacikitsita) is concerned with the treatment of mūtrāṅghāta and some related disorders.

The subjects dealt with are: the treatment of mūtrāṅghāta due to vāta (11.1–5ab),<sup>258</sup> pitta (11.5cd–8),<sup>259</sup> kapha (11.9–15ab),<sup>260</sup> and all three doṣas collectively; the treatment of aśmarī (vesical calculus) of recent origin and of vātabasti, etc. (11.15cd–16ab);<sup>261</sup> generalities about the therapy of aśmarī (11.16cd–17);<sup>262</sup> the treatment of aśmarī due to vāta (11.18–21),<sup>263</sup> pitta (11.22–24)<sup>264</sup> and kapha (11.25–27ab);<sup>265</sup> the treatment of śarkarā (gravel) and aśmarī in general (11.27cd–34ab);<sup>266</sup> prescriptions against various types of mūtrāṅghāta (11.34cd–41c);<sup>267</sup> the treatment of śukrāśmarī (11.41cd–43ab);<sup>268</sup> the surgical removal of aśmarī (11.43cd–55ab);<sup>269</sup> after-treatment (11.55cd–62);<sup>270</sup> eight places to be avoided when using sharp instruments: the (channels) carrying urine and semen, the urinary bladder, the testicles, the raphe (sevanī), the ano-rectal region, the urethra (mūtrapraseka), and the vagina (11.63).<sup>271</sup>

Chapter twelve (pramehacikitsita) is concerned with the treatment of prameha and the pramehapiṭikās.

The subjects dealt with are: purificatory therapy in prameha (12.1–3);<sup>272</sup> cases requiring appeasing (śamana) instead of purificatory (śodhana) measures (12.4–7ab);<sup>273</sup> the treatment of prameha with predominance of kapha (12.7c–f);<sup>274</sup> pitta (12.8);<sup>275</sup> vāta (12.9–10ab);<sup>276</sup> prescriptions for prameha in general (12.10cd–15);<sup>277</sup> a prescription for prameha due to kapha and pitta (12.16–17ab);<sup>278</sup> a medicated oil, ghee, or mixture of oil and ghee for prameha due to vāta and kapha, pitta, or a combination of all three doṣas (12.17cd–19ab);<sup>279</sup> the formulae of dhānavantaraghrta (12.19cd–24),<sup>280</sup> rodhrāsava (12.25–28)<sup>281</sup> and ayaskṛti (12.29–32);<sup>282</sup> general measures that are beneficial in prameha (12.33);<sup>283</sup> a śilodbhava (= śilājatu) preparation (12.34–36ab); alternative treatments for patients who cannot afford to pay a physician (12.36cd–37);<sup>284</sup> the treatment of emaciated patients (12.38ab); pramehapiṭikās should be treated in the same way as śopha when they are immature, in the same way as vṛaṇa when they are mature (12.38–39a);<sup>285</sup> the treatment of these piṭikas in their prodromal stage (12.39b–40ab);<sup>286</sup> the general treatment of pramehapiṭikās (12.40cd–43ab);<sup>287</sup> a patient with madhumeha, rejected by the physicians, should take śilājatu as a means that may lead to recovery (12.43cd–44).<sup>288</sup>

Chapter thirteen (vidradhivṛddhicikitsita) is about the treatment of abscesses (vidradhi) and enlargement of the scrotum (vṛddhi).

The subjects dealt with are: the treatment of vidradhi in general;<sup>289</sup> the āma (immature) type should be treated with repeated bloodletting, like a case of śopha; the pakva (mature) type should be managed like a vṛaṇa (13.1);<sup>290</sup> the treatment of vidradhi due to vāta (13.2–3);<sup>291</sup> pitta (13.4–5);<sup>292</sup> kapha (13.5d–7ab);<sup>293</sup> abscesses due to blood and those of the āgantū type require the same treatment as those due to pitta (13.7cd);<sup>294</sup> the treatment of immature (apakva) internal abscesses (13.8–10);<sup>295</sup> three formulae



(13.11–17);<sup>296</sup> bloodletting (13.18ab);<sup>297</sup> the treatment of maturing and mature internal abscesses (13.18cd–23);<sup>298</sup> after-treatment (13.24);<sup>299</sup> vidradhi requires the same treatment as gulma (13.25ab);<sup>300</sup> all types of vidradhi may be treated with guggulu or śilājatu, to which appropriate kaṣāyas have to be added (13.25cd–26ab);<sup>301</sup> maturation (pāka, i.e., suppuration) should be prevented (13.26cd–27ab);<sup>302</sup> abscesses in patients with prameha should be treated by the methods described for that disease (13.27cd); the treatment of mammary abscesses (stanavidradhi) (13.28–29ab);<sup>303</sup> the treatment of vṛddhi<sup>304</sup> due to vāta (13.29cd–31),<sup>305</sup> pitta<sup>306</sup> and blood<sup>307</sup> (13.32), kapha (13.33–35ab),<sup>308</sup> medas (fatty tissue) (13.35cd–38),<sup>309</sup> urine (13.39–40ab),<sup>310</sup> and intestine (40b–d);<sup>311</sup> the formula of sukumāraghṛta (13.41–47);<sup>312</sup> cauterization (13.48–51).<sup>313</sup>

Chapter fourteen (gulmacikitsita) is about the treatment of gulma.

The subjects dealt with are: the treatment of gulma due to vāta (14.1–10);<sup>314</sup> the formulae of hapuṣādighṛta (14.11–13ab),<sup>315</sup> dādhikaghṛta (14.13cd–21ab),<sup>316</sup> and tryūṣaṇādighṛta (14.21cd–22ab);<sup>317</sup> other medicated ghees (14.22cd–27ab);<sup>318</sup> the treatment of gulma due to vāta and kapha (14.27cd–31ab);<sup>319</sup> the formulae of hīṅvādicūrṇa (14.31cd–33),<sup>320</sup> vaiśvānaracūrṇa (14.34),<sup>321</sup> another cūrṇa (14.35), śārdūlacūrṇa (14.36),<sup>322</sup> another cūrṇa (14.37); recipes to be employed in gulma due to vāta (14.38–54);<sup>323</sup> the formula of nilinīghṛta (14.55–58);<sup>324</sup> articles of diet that are beneficial in cases of gulma due to vāta (14.59–60);<sup>325</sup> the treatment of gulma due to pitta (14.61–75)<sup>326</sup> and kapha (14.76–79);<sup>327</sup> the formula of bhallātakaghṛta (14.80–83ab);<sup>328</sup> sudation and oleation in cases of gulma (14.83cd–84);<sup>329</sup> the surgical treatment of gulma due to kapha (14.85–89ab);<sup>330</sup> miśrakasneha, a preparation that is useful in all cases of gulma (14.89cd–91ab);<sup>331</sup> nilinīghṛta, sukumāraghṛta, and medicated ghees described in the chapter on udara, may also be employed (14.91cd–92ab);<sup>332</sup> the formula of dantīharitakyavaleha (14.92cd–97);<sup>333</sup> purgatives (14.98–99);<sup>334</sup> nirūhas (14.100ab);<sup>335</sup> treatment with caustics, aṛiṣṭas, and cauterization (14.100cd–102);<sup>336</sup> the formula of kṣārāgāda (14.103–107ab);<sup>337</sup> caustics expel kapha (14.107cd–108ab); the treatment of patients with a sluggish digestive fire and loss of appetite (14.108cd–109ab); beneficial foods and drinks (14.109cd–113);<sup>338</sup> indications for cautery; the procedure to be followed in gulma due to kapha (14.114–118ab); the treatment of gulma due to a combination of doṣas (14.118cd–119ab);<sup>339</sup> the treatment of raktagulma (14.119cd–130).<sup>340</sup>

Chapter fifteen is concerned with the treatment of udara (disorders resulting in enlargement of the abdomen).

The subjects dealt with are: the necessity of regular purgation for patients suffering from udara; the reason is that the pathways of the channels (srotomārga) are obstructed by an excessive accumulation of doṣas (15.1);<sup>341</sup> purgative prescriptions (15.2–3);<sup>342</sup> medicated ghees for those who are dry and full of vāta (15.4–8);<sup>343</sup> after lubrication with these ghees, the physician should prescribe purgatives (15.9);<sup>344</sup> a purgative cūrṇa; the regimen that should follow it (15.10–12);<sup>345</sup> another cūrṇa (15.13);<sup>346</sup> the purgative called nārāyaṇacūrṇa (15.14–21);<sup>347</sup> more purgatives (15.22–26);<sup>348</sup> the diet of patients weakened by the purgatives (15.27a–c);<sup>349</sup> weak patients should, in case

of urgency, be purged by administering oleaginous substances only (15.27d–28ab); medicated ghees against udara (15.28cd–34);<sup>350</sup> rules for patients taking these ghees (15.35–36);<sup>351</sup> the indications for these ghees; their efficacy (15.37);<sup>352</sup> prescriptions against ānāha (15.38);<sup>353</sup> the proper diet after elimination of the doṣas (15.39ab);<sup>354</sup> prescriptions for the removal of remnants of the doṣas (15.39cd–42);<sup>355</sup> various prescriptions against udara and its complications (15.43–53ab);<sup>356</sup> the treatment of udara due to vāta (15.53cd–58);<sup>357</sup> pitta (15.59–65);<sup>358</sup> kapha (15.66–75);<sup>359</sup> all three doṣas (15.76–84);<sup>360</sup> the treatment of plīhodara (enlargement of the spleen) (15.85–98ab);<sup>361</sup> enlargement of the liver should be treated in the same way as plīhodara (15.98cd);<sup>362</sup> the treatment of baddhodara (15.99–100);<sup>363</sup> chidrodara (15.101);<sup>364</sup> and udakodara (15.102–106);<sup>365</sup> surgical intervention is necessary when the last three types of udara do not subside with the mentioned procedures (15.107);<sup>366</sup> the surgical treatment of baddhodara and kṣatāntara (= chidrodara) (15.108–112);<sup>367</sup> and jalodara (= udakodara) (15.113–117);<sup>368</sup> after-treatment (15.118–120ab);<sup>369</sup> articles of diet suitable to or to be avoided by patients with udara (15.120cd–132).<sup>370</sup>

Chapter sixteen (pāṇḍurogacikitsita) is about the treatment of morbid pallor (pāṇḍuroga) and some related disorders.

The subjects dealt with are: medicated ghees to be administered at the beginning of the treatment of pāṇḍuroga (16.1);<sup>371</sup> the formula of another medicated ghee (16.2–4);<sup>372</sup> purificatory treatment (16.5–9);<sup>373</sup> prescriptions against pāṇḍuroga (16.10–15ab);<sup>374</sup> the formula of maṇḍūravaṭaka (16.15cd–20ab);<sup>375</sup> more prescriptions (16.20cd–32);<sup>376</sup> rules for the treatment of pāṇḍuroga due to vāta, pitta, kapha, and all the doṣas (16.33–34);<sup>377</sup> the treatment of pāṇḍuroga caused by the eating of earth (16.35–39);<sup>378</sup> the general treatment of kāmālā (16.40–44);<sup>379</sup> the treatment of kāmālā with discoloured faeces (16.45);<sup>380</sup> the aetiology, pathogenesis and treatment of kāmālā located in the śākhās (16.46–52ab);<sup>381</sup> the treatment of kumbhakāmālā (16.52cd–53ab)<sup>382</sup> and halīmaka (16.53cd–57ab);<sup>383</sup> the procedures described in the treatment of śopha should be adopted too in the treatment of pāṇḍuroga (16.57cd).

Chapter seventeen (śvayathucikitsita) deals with the treatment of oedematous swellings (śvayathu, śopha).

The subjects dealt with are: the treatment of śvayathu affecting the whole body (sarvāṅgasara) (17.1–25ab)<sup>384</sup> or part of the body (ekāṅgaśopha) (17.25cd–27);<sup>385</sup> the treatment of śvayathu due to vāta (17.28–30ab);<sup>386</sup> pitta (17.30cd–33ab);<sup>387</sup> kapha (17.33cd);<sup>388</sup> various prescriptions against śvayathu in general (17.34–38);<sup>389</sup> śvayathu due to a combination of two or three doṣas (17.39–40);<sup>390</sup> and traumatic (kṣataja) śvayathu (17.41);<sup>391</sup> things to be avoided by a patient suffering from śvayathu (17.42).<sup>392</sup>

Chapter eighteen (visarpacikitsita) is about the treatment of visarpa (erysipelas and related disorders).

The subjects dealt with are: the procedures to be used at the beginning of the

treatment of visarpa (18.1);<sup>393</sup> emetics (18.2);<sup>394</sup> purgatives (18.3–4ab);<sup>395</sup> indications for appeasing instead of purificatory procedures (18.4cd–5); drinks for thirsty patients (18.6–7);<sup>396</sup> bloodletting (18.8);<sup>397</sup> ghees (18.9);<sup>398</sup> external applications (18.10);<sup>399</sup> external applications in the treatment of visarpa due to vāta (18.11);<sup>400</sup> pitta (18.12–14ab);<sup>401</sup> kapha (18.14cd–18ab);<sup>402</sup> prescriptions for special cases (18.18cd–20ab);<sup>403</sup> the treatment of visarpa due to a combination of doṣas (18.20cd); the treatment of agniviṣarpa (18.21–22)<sup>404</sup> and granthiviṣarpa (18.23–24);<sup>405</sup> the treatment of visarpa when it is moist (praklinna) from cauterization (dāha) or suppuration (pāka) (18.35–36ab);<sup>406</sup> the importance of bloodletting in visarpa, which is a disease that is always associated with raktapitta (18.36cd–37);<sup>407</sup> only ghees which are purgative should be administered to a patient with visarpa (18.38).<sup>408</sup>

Chapter nineteen (kuṣṭhacikitsita) is about the treatment of kuṣṭha.

The subjects dealt with are: oleation should be adopted as the first therapeutic measure in cases of kuṣṭha (19.1ab);<sup>409</sup> a medicated oil or ghee to be prescribed when vāta is the predominant doṣa (19.1cd–2ab);<sup>410</sup> the formula of tiktakaghṛta, which cures kuṣṭha due to pitta (19.2cd–7);<sup>411</sup> and mahātiktakaghṛta, more potent than tiktakaghṛta (19.8–11ab);<sup>412</sup> a medicated ghee against kuṣṭha due to kapha (19.11cd–12ab);<sup>413</sup> medicated oils and ghees against all types of kuṣṭha (19.12cd–14ab);<sup>414</sup> these oleaginous substances may also be used for anointing the body (abhyañjana) (19.14cd); after oleation, one should proceed to the same purificatory treatment as in visarpa (19.15ab);<sup>415</sup> bloodletting (19.15cd–16ab);<sup>416</sup> purification should be followed by a fatty regimen (19.16cd–17);<sup>417</sup> the formulae of vajrakaghṛta (19.18)<sup>418</sup> and mahāvajrakaghṛta (19.19–20);<sup>419</sup> more medicated ghees (19.21–24);<sup>420</sup> articles of diet that are beneficial in kuṣṭha and those to be avoided (19.25–27);<sup>421</sup> the recipe for a kaṣāya (19.28–30);<sup>422</sup> the formula of māñibhadraguḍa (19.31–32); various prescriptions (19.33–42);<sup>423</sup> the formula of saptasamā gulikā (19.43); more prescriptions (19.44–53);<sup>424</sup> after subduing the doṣas inside the body, those present in the skin should be appeased by means of external applications (19.54); prescriptions for various external applications (19.55–78);<sup>425</sup> the formulae of vajrakataila (19.79–80)<sup>426</sup> and mahāvajrataila (19.81–82);<sup>427</sup> more external applications (19.83–89);<sup>428</sup> prescriptions against kuṣṭha with loss of parts of the body (19.90)<sup>429</sup> and infestation by maggots (kṛmi) (19.91);<sup>430</sup> the measures to be taken first in kuṣṭha due to vāta, pitta and kapha respectively (19.92);<sup>431</sup> the application of pastes (lepa), after the elimination of blood and doṣas, and after purification, will quickly lead to success (19.93);<sup>432</sup> when treated adequately and in the proper order, kuṣṭha does not become incurable (19.94);<sup>433</sup> a patient with a large amount of doṣas should repeatedly be purified in order to prevent the dangers attendant on massive and excessive elimination (19.95);<sup>434</sup> emetics should be administered every fortnight, purgatives every month; evacuation of the head should be carried out every third day and bloodletting every six months (19.96);<sup>435</sup> kuṣṭha becomes incurable when the doṣas are not eliminated by emetics and purgatives (19.97);<sup>436</sup> therapeutic measures based on religion may be resorted to, such as the worship of Śiva, Śiva's son, Tārā and Bhāskara (19.98).<sup>437</sup>

Chapter twenty (śvitraḥkṛmicikitsita) is concerned with the treatment of depigmentation (śvitra) and disorders caused by parasites (kṛmi).

The subjects dealt with are: śvitra, more dreadful than kuṣṭha, becomes incurable very soon and should be counteracted energetically (20.1); the general treatment of śvitra (20.2–3);<sup>438</sup> prescriptions (20.4–17);<sup>439</sup> general rules regarding treatment (20.18);<sup>440</sup> the general treatment of disorders caused by parasites (20.19–23);<sup>441</sup> prescriptions (20.24–34);<sup>442</sup> articles of diet to be avoided (20.35).<sup>443</sup>

Chapter twenty-one (vātavāyādhikikitsita) is concerned with the treatment of the group of diseases called vātavāyādhī.

The subjects dealt with are: the treatment of disorders by vāta singly, brought about without the support (upastambha) of other doṣas, by means of the oral administration of oleaginous substances and by means of sudation (21.1–4ab);<sup>444</sup> the effects of these procedures (21.4cd–9ab);<sup>445</sup> purification is required when the disorders are not alleviated (21.9cd–10ab);<sup>446</sup> purificatory ghees (21.10cd–11ab);<sup>447</sup> obstruction of vāta should be counteracted by making it move downwards (21.11cd–12ab);<sup>448</sup> the treatment of patients unfit for purgation (21.12cd–13);<sup>449</sup> the treatment of vāta residing in the āmāśaya (21.14–15ab);<sup>450</sup> the umbilical region (21.15cd);<sup>451</sup> below the umbilical region (21.16ab);<sup>452</sup> in the koṣṭha (21.16cd);<sup>453</sup> cardiac region and head (21.17);<sup>454</sup> skin (21.18ab);<sup>455</sup> blood (21.18cd);<sup>456</sup> muscular tissue and fatty tissue (21.19ab);<sup>457</sup> bones and marrow (21.19cd);<sup>458</sup> and semen (21.20–21ab);<sup>459</sup> the treatment of vāta affecting the foetus in the womb (21.21cd–22ab);<sup>460</sup> the treatment of vāta residing in snāvas, junctures, and śirās (21.22cd–24ab);<sup>461</sup> the treatment of apātānaka caused by vāta singly (21.24cd–35ab) and vāta associated with kapha (21.35cd–37);<sup>462</sup> the treatment of the two kinds of āyāma (21.38), dhanuṣkambha (21.39–40), hanuśraṃsa (21.41–42ab);<sup>463</sup> jihvāstambha (21.42cd), ardita (21.43);<sup>464</sup> pakṣāghāta (21.44ab);<sup>465</sup> avabāhu (21.44cd), ūrustambha (21.45–49);<sup>466</sup> prescriptions against disorders caused by vāta singly and vāta associated with other agents (21.50–73ab);<sup>467</sup> the formula of balātaila (21.73cd–81);<sup>468</sup> oleation, errhines, anuvāsanas and inunction quickly alleviate disorders by corrupted vāta (21.82); when kapha, liquefied by oleation and sudation, comes to reside in the pakvāśaya, or when the signs of pitta appear, treatment by means of clysters is required (21.83).

Chapter twenty-two (vātaśoṇitacikitsita) is about the treatment of vātaśoṇita, also called vātarakta.

The subjects dealt with are: the importance of bloodletting in vātaśoṇita and the indications for its various methods (22.1–3ab);<sup>469</sup> contra-indications (22.3cd–4);<sup>470</sup> purgation (22.5ab);<sup>471</sup> the treatment of vātarakta due to vāta (22.5cd–9);<sup>472</sup> pitta (22.10–14ab);<sup>473</sup> kapha (22.14cd–15);<sup>474</sup> various prescriptions for internal use in vātarakta (22.16–20);<sup>475</sup> prescriptions for external application (22.21–37);<sup>476</sup> treatment of the uttāna and gambhīra types of vātarakta (22.38);<sup>477</sup> treatment of vātarakta with a predominance of vāta and kapha (22.39);<sup>478</sup> pitta and blood (22.40);<sup>479</sup> medicated oils (22.41–46);<sup>480</sup> obstruction of excited vāta by increased fatty tissue (medas) and kapha should be treated first like ādhyavāta, and, subsequently, as vātarakta

(22.47–48);<sup>481</sup> simultaneous excitement of prāṇa and other kinds of vāta should be treated in agreement with the doṣa excited and the disorder present (22.49);<sup>482</sup> in disorders caused by vāta accompanied by āma, measures aiming at removal of āma should be employed first, followed by those counteracting vāta (22.50); śoṣa (wasting), ākṣepaṇa (convulsions), saṅkoca (contractures), stambha (rigidity), svapana (anaesthesia), kampana (tremors), hanusraṇsa (drooping of the lower jaw), ardita (facial palsy), khāñjya (limping), pāṅgulya (lameness), khuḍavātātā (= vātarakta), sandhicyuti (dislocation of joints), and pakṣavadha (hemiplegia) are diseases caused (by vāta) residing in the fatty tissue, bones and marrow; they can be cured when of recent onset and should therefore be treated in their initial stage (22.51–53ab); the treatment of vāta covered by pitta (22.53cd–56),<sup>483</sup> kapha (22.57–58ab),<sup>484</sup> or pitta and kapha together (22.58cd);<sup>485</sup> the treatment of vāta covered by blood, muscular tissue, fatty tissue, bones and marrow, semen, food, urine, or faeces (22.59–62ab);<sup>486</sup> the treatment of vāta covered everywhere (22.62cd–66ab);<sup>487</sup> the treatment of covered apāna (22.66cd–67ab);<sup>488</sup> covered states of prāṇa, etc., should be treated according to the physician's ability of discernment (22.67cd–68ab);<sup>489</sup> udāna should be made to move upwards, samāna requires śamana measures, vyāna should be made to move in three directions, and prāṇa, on which the integrity of the body depends, should be protected from the other four kinds of vāta (22.68cd–69);<sup>490</sup> covered types of vāta, when moving outside their pathways, should be brought back to their own seats (22.70ab);<sup>491</sup> garlic cures all types of covering, those by pitta and blood excepted (22.70cd–71ab); the treatment of covering by pitta and blood (22.71cd–72).<sup>492</sup>

The treatment of all the diseases described in the Nidāna(sthāna) is completed now. The chapter ends with the synonyms of auśadha (therapeutic measure) (22.74).

## Chapter 5

### Kalpasiddhīsthāna

Chapter one (vamanakalpa) deals with: madana as the best drug to induce vomiting,<sup>2</sup> and the root of trivṛt as the best for the purpose of purgation;<sup>3</sup> other drugs are the best choice in specific diseases (1.1); preparations with madana fruits (1.2–18);<sup>4</sup> when ripe fruits are unavailable, the flowers or unripe fruits (śalātu) may be employed (1.19ab);<sup>5</sup> the fruits of jīmūta, etc., are similar to those of madana; they are particularly suitable to patients with fever, respiratory problems, cough, hiccup, and other diseases (1.19cd–20ab);<sup>6</sup> preparations with the flowers and fruits of jīmūta (1.20cd–22);<sup>7</sup> similar recipes may be prepared with the fruits of tumbī or kośātakī (1.23ab); compound recipes with jīmūta (1.23cd–25);<sup>8</sup> indications for jīmūta paste (kalka) and powder (cūrṇa), together with cold or lukewarm water, in particular fevers (1.26); indications for preparations with ikṣvāku (1.27);<sup>9</sup> preparations with the leaf buds (pravāla), fruits and flowers of ikṣvāku, also called tumbī (1.28–34);<sup>10</sup> indications for dhāmārgava (= rājakośātakī) (1.35–36ab);<sup>11</sup> preparations with dhāmārgava fruits (1.36cd–40);<sup>12</sup> indications for kṣveḍa (= tiktakośātakī) (1.41);<sup>13</sup> preparations with kṣveḍa (1.42–43);<sup>14</sup> indications for kuṭaja seeds (1.44);<sup>15</sup> preparations with kuṭaja seeds (1.45–46).<sup>16</sup>

Chapter two (virecanakalpa) deals with: the properties and actions of trivṛt (2.1);<sup>17</sup> in combination with other drugs, trivṛt cures all diseases (2.2);<sup>18</sup> the two varieties of trivṛt roots: trivṛt proper and śyāma; their actions and indications (2.3–5);<sup>19</sup> the selection of suitable roots and the preparation of their bark (2.6);<sup>20</sup> preparations with trivṛt (2.7–16);<sup>21</sup> the preparations called kalyāṇakaguḍa (2.17–21ab)<sup>22</sup> and avipattiyoga (2.21cd–23);<sup>23</sup> preparations suitable to be administered in a particular season (2.24–27ab)<sup>24</sup> and in all seasons (2.27cd–30ab);<sup>25</sup> the properties, actions and indications of rājavṛkṣa (2.30cd–32ab);<sup>26</sup> the preparation for medicinal use of rājavṛkṣa fruits (2.32cd–34ab);<sup>27</sup> preparations with the pulp of rājavṛkṣa fruits (2.34cd–37);<sup>28</sup> the preparation of the bark of tilvaka roots; preparations made with this bark (2.38–41);<sup>29</sup> the actions of sudhā; its indications and contra-indications (2.42–44ab);<sup>30</sup> the best kind of sudhā; the collection of its milky sap (2.44cd–45);<sup>31</sup> preparations with the milky sap of sudhā, also called snuh (2.46–48);<sup>32</sup> the collection of śārikhinī fruits and saptalā roots (2.49a–c);<sup>33</sup> the actions and indications of these two drugs; the way to use them as medicines (2.49d–51ab);<sup>34</sup> the selection of suitable roots of dantī and dravantī; the actions of these drugs (2.51cd–52);<sup>35</sup> their preparation for medicinal use (2.53);<sup>36</sup> preparations with dantī and dravantī roots and their indications (2.54–57ab);<sup>37</sup> these nine drugs, trivṛt, etc., are the best ones for inducing purgation (2.57cd); harītakī can be used in the same way as trivṛt (2.58ab);<sup>38</sup> pills prepared with harītakī and a number of other drugs that

cure all diseases, but in particular grahaṇī, pāṇḍu(roga), kaṇḍū (pruritus), koṭha, and haemorrhoids (2.58cd–61ab);<sup>39</sup> the effects of a drug depend on the combination with other drugs, the way of preparation and administration, etc. (2.61cd–62ab);<sup>40</sup> the drugs that should always be added to purgatives (2.62c–f).

Chapter three (vamanavirecanavyāpatsiddhi) deals with the following subjects: an improperly administered emetic comes out by the downward route;<sup>41</sup> in such a case, the patient should be given an emetic again, after having been oeated (3.1–2);<sup>42</sup> an improperly administered purgative comes out by the upper route; the treatment of this condition (3.3–5ab);<sup>43</sup> the disorders that arise when purgatives are administered without prior oleation and sudation (3.5cd–7ab);<sup>44</sup> the same disorders may arise when too small a dose of a purgative is given, after proper oleation and sudation (3.7cd–8c);<sup>45</sup> these mishaps belong to the category called ayoga (3.8d); the treatment of these conditions (3.9–10);<sup>46</sup> the disorders arising from the administration of a small dose of a purgative to patients who need a much larger quantity; the treatment required (3.11–14);<sup>47</sup> the treatment of pravāhikā,<sup>48</sup> parisrāva,<sup>49</sup> and vedanāparikartana<sup>50</sup> as complications (3.15–16ab); the symptoms appearing when the patient suppresses the urges to defecate after ingestion of a purgative; the treatment of this condition (3.16cd–20ab);<sup>51</sup> the symptoms due to too large a dose of a purgative; the treatment required (3.20cd–21ab);<sup>52</sup> the symptoms appearing when the urges to vomit are suppressed after ingestion of an emetic; the treatment required (3.21cd–23ab);<sup>53</sup> the symptoms due to a very strong emetic; the treatment required (3.23cd–26);<sup>54</sup> the treatment of excessive vomiting (3.27–28);<sup>55</sup> the treatment required when the tongue has retracted (3.29–30);<sup>56</sup> when obstruction to speech (vāggraha) and other disorders due to vāta occur (3.31);<sup>57</sup> when, due to excessive vomiting, jīvaṣoṇita (life-blood) comes out (3.32–34);<sup>58</sup> when thirst, fainting and signs pointing to mada appear (3.35–38);<sup>59</sup> when a prolapse of the rectum develops (3.39ab);<sup>60</sup> and when the patient loses consciousness (3.39cd).<sup>61</sup>

Chapter four (bastikalpa) is concerned with the enemas called nirūha (4.1–53ab) and snehabasti (= anuvāsana) (4.53cd–73).

The subjects dealt with are: nirūhas against diseases due to vāta (4.1–10);<sup>62</sup> pitta (4.11–16);<sup>63</sup> and kapha (4.17–19ab);<sup>64</sup> mild and fatty nirūhas, measured in prasṛta, are suitable to delicate patients and to those who suffer from the effects of (pañca)karman treatment; the recipes for five enemas of this type; their indications (4.19cd–26ab);<sup>65</sup> siddhabastis, which can always be administered, because they are without harmful side-effects (4.26cd–27ab);<sup>66</sup> two mādhutailika nirūhas (4.27cd–29ab);<sup>67</sup> two yāpana enemas (4.29cd–31ab);<sup>68</sup> two yuktaratha enemas (4.31cd–33ab);<sup>69</sup> siddhabasti (4.33cd–34ab);<sup>70</sup> another enema (4.34cd–36);<sup>71</sup> more enemas, for the greater part containing meat broth, milk, ghee and several drugs (4.37–52);<sup>72</sup> a medicated milk, to be drunk after the administration of a nirūha (4.53ab); snehabasti will be described now (4.53cd–54ab);<sup>73</sup> snehabastis against diseases due to vāta (4.54cd–59ab);<sup>74</sup> vāta and pitta (4.59cd–62ab);<sup>75</sup> kapha (4.62cd–67);<sup>76</sup> when a mild enema has made the bowels inert (jaḍa), one should administer a sharp one;<sup>77</sup> when the bowels are irritated (vikarṣita) by a sharp enema, one should give a mild one; both types should

be employed on the appropriate occasion (4.68–69);<sup>78</sup> enemas prepared with drugs counteracting a particular doṣa cure the disorder caused by that doṣa when one takes into consideration the strength of the doṣa involved, the constitution of the patient, etc. (4.70);<sup>79</sup> patients suffering from heat require a cooling, those suffering from cold a heating enema (4.71);<sup>80</sup> contra-indications for bṛṇḥaṇīya (roborant) (4.72)<sup>81</sup> and viśodhanīya (purificatory) enemas (4.73).<sup>82</sup>

Chapter five (bastivyāpatsiddhi) deals with: types of improper administration (ayoga) of nirūhas; the syndromes produced; their treatment (5.1–21ab);<sup>83</sup> types of excessive administration; the symptoms produced; their treatment (5.21cd–28c);<sup>84</sup> types of incorrect administration of snehabastis; the syndromes produced; their treatment (5.28d–50);<sup>85</sup> the after-treatment of patients who have been subjected to emesis and other purificatory procedures (5.51–54).<sup>86</sup>

Chapter six (dravyakalpa) deals with the following subjects: the characteristics of habitats where good medicinal herbs can be found (6.1–3a);<sup>87</sup> the characteristics of suitable medicinal plants (6.3b–4);<sup>88</sup> a mantra to be muttered during the collection of medicinal plants (additional verses); directions for the collection of medicinal substances (6.5–7);<sup>89</sup> sources of kaṣāyas are (substances possessing one or more of) five tastes; the salty taste forms an exception;<sup>90</sup> the five types of kaṣāya are: rasa,<sup>91</sup> kalka,<sup>92</sup> śṛta,<sup>93</sup> śīta, and phāṇṭa; their strength decreases in the mentioned order (6.8–9ab);<sup>94</sup> the characteristics of the five types of kaṣāya (6.9cd–11ab);<sup>95</sup> the determination of the appropriate dose of a medicinal preparation (6.11cd–12); the preparation of the five kinds of kaṣāya (6.13–14);<sup>96</sup> the general rule for the ratios of the ingredients in preparing a sneha (i.e., a medicated ghee or oil), when the quantities are not mentioned explicitly: one part of paste, four parts of sneha, sixteen parts of liquid;<sup>97</sup> Śaunaka, however, teaches that the quantity of the paste (kalka) used in preparing a sneha depends on the liquid used; the quantity of the paste should be one-fourth of that of the liquid when this is pure water, one-sixth when it is a decoction (niḥkvātha), and one-eighth when it is a freshly expressed juice (svarasa) (6.15–16); when a fifth, etc., fluid is added, its quantity should be the same as that of the sneha (6.17ab);<sup>98</sup> the signs indicating that the intended stage of boiling the sneha has been reached (6.17cd–18);<sup>99</sup> the characteristics indicating that the correct stage of preparing an electuary (leha) has been reached (6.19ab); the three stages in the preparation of a sneha: manda, cikkaṇa and kharacikkaṇa; the characteristics of these stages;<sup>100</sup> a longer time of boiling makes it look burnt (dagdha); such a sneha is unsuitable to be used;<sup>101</sup> an improperly prepared sneha leads to weakness (sāda) of the digestive fire (6.19cd–21ab); a sneha of the mṛdu (= manda) type is employed for errhines, the khara(cikkaṇa) type for anointing the body (abhyāṅga), the cikkaṇa type for drinkable drugs and for enemas (6.21cd);<sup>102</sup> a śāṇa, pāṇīpala, muṣṭi, kuḍava, prastha, āḥhaka, droṇa, and vāha are each four times as much as the measure preceding in the series (6.22); the quantity of fresh drugs to be taken is double (the quantity of dried ones); this also applies to liquids, to begin with the measure called kuḍava (6.23ab);<sup>103</sup> when no liquid is mentioned in the formula of a sneha, water should be used;<sup>104</sup> when the ratios of the ingredients are not mentioned, one should take equal



quantities;<sup>105</sup> when the type of preparation is not mentioned, one should use a paste (kalka); when the part of the plant is not mentioned, one should employ its roots; when the plant is not well known, one should also take its roots (6.23cd–25ab); six *vaṃśī* make a *maṛīcī*, six *maṛīcī* a *saṛṣapa*, eight *saṛṣapa* a *taṇḍula*, two *taṇḍula* a *dhānyamāṣa*, two *dhānyamāṣa* a *yava*, four *yava* an *aṇḍikā*, four *aṇḍikā* a *māṣaka*, four *māṣaka* a *śāṇaka* (additional verse); two *śāṇa* make a *vaṭaka*, *kola*, *badara*, or *draṅkṣaṇa*, two *vaṭaka* an *akṣa*, *picu*, *pāṇitala*, *suvarṇa*, *kavalagraha*, *karṣa*, *biḍālapadaka*, *tinduka*, or *pāṇimānikā*, two *picu* a *śukti* or *aṣṭamikā*, (two *śukti*) a *pala*, *prakuñca*, *bilva*, *muṣṭi*, *āmra*, or *caturthikā*, two *pala* a *prasṛta*, two *prasṛta* an *añjali*, two *añjali* a *mānikā*; *āḍhaka*, *bhājana* and *kaṃsa* have the same meaning, as well as *droṇa*, *kumbha*, *ghaṭa* and *armaṇa*; one hundred *pala* make a *tulā*, twenty *tulā* a *bhāra* (6.25cd–29ab);<sup>106</sup> drugs found in the Himālayas are *saumya* (cooling) and wholesome,<sup>107</sup> those coming from the Vindhya are *āgneya* (heating) (6.29cd–30).

## Chapter 6 Uttarasthāna

Chapter one (bālopacaraṇīya) is devoted to the care for children.<sup>2</sup>

The subjects are: the care for a child just after it is born, in particular when it has suffered during delivery (1.1);<sup>3</sup> a ritual, accompanied by a mantra to be muttered in the infant's right ear (1.2–4);<sup>4</sup> the cutting of the umbilical cord, which has to be fastened to the infant's neck (1.5);<sup>5</sup> the treatment of the wound and the remnant of the cord (1.6–7ab);<sup>6</sup> the cotton swab (picu) to be placed on the head, and the paste to be put on the infant's palate; a mantra has to be muttered over the paste (1.7cd–9ab);<sup>7</sup> alternatives for the mentioned paste (1.9cd–10ab);<sup>8</sup> the administration of ghee, mixed with salt, which makes the infant vomit the amniotic fluid (garbhāmbhas)<sup>9</sup> it may have ingested (1.10cd);<sup>10</sup> subsequently, the jātakarman should be performed, according to the rules of Prajāpati (1.11ab);<sup>11</sup> lactation starts on the third or fourth day as the consequence of the dilatation of the sirās in the cardiac region after parturition (1.11cd–12ab);<sup>12</sup> the way the infant should be fed during the first three days (1.12cd–14);<sup>13</sup> the breast-milk of the child's mother is the best food (1.15ab); when the mother does not produce enough milk, one should select two wetnurses; these should be treated with much concern (1.15cd–17ab);<sup>14</sup> the causes of deficient milk production (1.17cd);<sup>15</sup> galactagogue measures (1.18);<sup>16</sup> corrupted breastmilk generates diseases in the child (1.19);<sup>17</sup> substitutes for breastmilk (1.20);<sup>18</sup> a ritual to be performed during the sixth night after birth (1.21);<sup>19</sup> the new mother should get up (sūtikothāna) after the tenth day and the name-giving ceremony (nāmakaraṇa) should then be performed (1.22–23);<sup>20</sup> a physician who is well versed in the subject should examine (parīkṣaṇa) the signs determining the child's life span (āyus) (1.24);<sup>21</sup> requirements for the child's bedding, which has to be fumigated (1.25);<sup>22</sup> suitable materials for fumigation (1.26ab);<sup>23</sup> materials to be worn by the child in the form of amulets (maṇi) (1.26cd–28ab);<sup>24</sup> the piercing of the earlobes (karṇavedha) (1.28cd–36);<sup>25</sup> weaning should take place after teething (1.37ab); the diet after weaning; the treatment of minor digestive disorders (1.37cd–40ab);<sup>26</sup> purgatives should be resorted to in an emergency (ātyayika) only (1.40cd);<sup>27</sup> an unruly (avidheya) child ought not to be frightened, because this would make it a victim of some graha (1.41ab);<sup>28</sup> children should be protected against draughts, being touched by strangers, and malnutrition (1.41cd);<sup>29</sup> a medicated ghee warding off malicious beings (1.42–43ab); the formulae of aṣṭāṅgasarpis (1.43cd–45ab)<sup>30</sup> and sārasvatāsarpis (1.45cd–46ab),<sup>31</sup> which promote a child's mental and physical abilities; two more formulae with the same range of action (1.46cd–49ab);<sup>32</sup> a recipe for improving the voice (1.49cd–50).<sup>33</sup>

Chapter two (bālāmayapratīṣedha) is concerned with the treatment of children's diseases.<sup>34</sup>

The subjects dealt with are: a child subsists on milk, solid food (anna), or both; when these foods are not corrupted, it remains healthy; otherwise, it develops disorders (2.1); the characteristics of pure milk and those of milk corrupted by vāta, pitta, kapha, a combination of two doṣas, or the three doṣas jointly (2.2–4);<sup>35</sup> the way to diagnose diseases brought about by corrupted breastmilk in young children (2.5–8);<sup>36</sup> next, the mother or wetnurse should be treated (2.9ab); the treatment of mother or wetnurse and the child when the milk is affected by vāta (2.9cd–13ab), pitta (2.13cd–16ab), or kapha (2.16b–19);<sup>37</sup> the symptomatology of a serious children's disease called kṣīrālasaka (2.20–23ab);<sup>38</sup> the treatment of this disease (2.23cd–26ab);<sup>39</sup> teething (dantodheda)<sup>40</sup> may give rise to all kinds of diseases, in particular to fever, diarrhoea, cough, vomiting, headache, abhiṣyanda, pothakī, and visarpa (2.26cd–28); the treatment of disorders caused by teething (2.29); general rules concerning the treatment of young children (2.30–34ab); preparations for curing corruption of the breastmilk (2.34cd–35ab);<sup>41</sup> recipes to promote teething (daśanañjanman) (2.35cd–38ab); a recipe against various disorders (2.38cd–40); a recipe, deriving from Vydhakāśyapa, against diseases caused by the eruption of teeth (2.41–43ab); caution is necessary, because these diseases disappear spontaneously in many cases (2.43cd–44ab); the aetiology, pathogenesis and symptomatology of śoṣa (wasting) in children (2.44cd–46ab);<sup>42</sup> the treatment of this syndrome (2.46cd–54ab); the recipe of lākṣādikataila, effective in various disorders (2.54cd–57ab);<sup>43</sup> a recipe against fever, cough and vomiting (2.57cd–58ab); the treatment of children who vomit each time after having been breastfed (2.58cd–61); the causes of the non-cutting of teeth (additional verse);<sup>44</sup> a syndrome which makes a child produce a particular sound with its teeth during sleep (additional verse);<sup>45</sup> a child having already teeth at birth,<sup>46</sup> or whose upper teeth cut first,<sup>47</sup> should be presented to a brāhmaṇa, accompanied by a dakṣiṇā, and the parents should pay honour to Naigameṣa (2.62–63ab); the pathogenesis and symptomatology of tālukantaka (2.63cd–65ab);<sup>48</sup> the treatment of this disorder (2.65cd–68); the causes and symptoms of a disease variously called mātṛkādoṣa,<sup>49</sup> ahipūtana,<sup>50</sup> prṣṭārus,<sup>51</sup> gudakuṭṭa,<sup>52</sup> or anāmika<sup>53</sup> (2.69–70);<sup>54</sup> the treatment of this disorder (2.71–75); the treatment of diseases caused by (the eating of) earth (mṛttikā) (2.76–77ab);<sup>55</sup> any children's disease may be treated by applying a medicine on the breast of the woman who suckles it, letting it stay there for a muhūrta, washing the breast, and administering the fluid obtained to the child (2.77c–f).<sup>56</sup>

Chapter three (bālagrahapratīṣedha)<sup>57</sup> is about demons afflicting children (bālagraha) and ways of warding these beings off.

The subjects dealt with are: the creation by Śūlapāṇi, with the intention to protect Guha,<sup>58</sup> of five male and seven female grahas; the male ones are: Skanda,<sup>59</sup> Viśākha,<sup>60</sup> Meṣa,<sup>61</sup> Śvagraha,<sup>62</sup> and Pitṛgraha;<sup>63</sup> the female ones are: Śakuni, Pūtanā, Śītāpūtanā, Adṛṣṭipūtanā,<sup>64</sup> Mukhamaṇḍitikā,<sup>65</sup> Revatī, and Śuṣkarevatī<sup>66</sup> (3.1–3ab);<sup>67</sup> continuous crying and fever are the forerunners of an attack by a graha (3.3cd); the general symptoms of affliction by a graha (3.4–5);<sup>68</sup> the symptoms caused by Skanda (3.6–

9ab),<sup>69</sup> Skandāpasmāra (3.9cd–11),<sup>70</sup> Naigameṣa (3.12–14),<sup>71</sup> Śvan (3.15–16ab),<sup>72</sup> Pitṛgraha (3.16cd–18ab),<sup>73</sup> Śakuni (3.18cd–20ab),<sup>74</sup> Pūtanā (3.20cd–21),<sup>75</sup> Śītapūtanā (3.22–23ab),<sup>76</sup> Andhapūtanā (3.23cd–25),<sup>77</sup> Mukhamāṇḍitā (3.26–27ab),<sup>78</sup> Revatī (3.27cd–28),<sup>79</sup> and Śuṣkarevatī (3.32ab);<sup>80</sup> grahas attack both children and adults out of a desire to hurt (himsākāṅkṣā), to experience sexual lust (ratyākāṅkṣā), or to receive worship (arcanākāṅkṣā) (3.32cd);<sup>81</sup> the syndromes caused by these three types of grahas are incurable, difficult to cure, and easily curable respectively (3.33–40ab);<sup>82</sup> grahas wishing to kill are subdued by sacrificial offerings (homa) and mantras, the other two types by yielding to their wishes (3.40cd–41ab);<sup>83</sup> the general treatment of afflictions by grahas in children (3.41cd–47ab);<sup>84</sup> two recipes for a fumigation driving away all grahas (3.47cd–49ab);<sup>85</sup> medicated ghees to be administered (3.49cd–54); a recipe for fumigation (3.55–57); moreover, one should employ the ghees described in the bhūtaavidyā (chapter);<sup>86</sup> someone acquainted with mantratantra<sup>87</sup> should perform (the rituals called) bali, homa and snapana<sup>88</sup> (3.58); the substances for a decoction, to be used in a nocturnal bath (snapana) (3.59–60ab); secondary pathogenic involvements (anubandha) should, according to their seriousness, be treated with the remedial measures described in the bālāmāyāniśedha (chapter);<sup>89</sup> this also applies to complications appearing when a graha departs (3.60cd–61).

Chapter four (bhūtavijñāniya) is concerned with possession by non-human beings (bhūta).

The subjects dealt with are: signs enabling one to recognize a bhūtagraha (4.1); signs characteristic of a possessed (āviṣṭa) person (4.2); possession is of eighteen types (4.3ab); the ground for the occurrence of possession is an act of prajñāparādha in this or a former life, which gives deities, etc., and grahas the opportunity of striking (prahārin) at a weak spot (chidra) (4.3cd–5);<sup>90</sup> examples of these weak spots, such as being alone at night in an uninhabited place, etc. (4.6–8);<sup>91</sup> the days of the month preferred for an attack by the various groups of beings causing possession;<sup>92</sup> most dangerous are the periods of twilight (4.9–12); the signs pointing to possession by a Deva (4.13–15),<sup>93</sup> Daitya (4.16–17),<sup>94</sup> Gandharva (4.18–19ab),<sup>95</sup> Uruga (4.19cd–21ab),<sup>96</sup> Yakṣa (4.21cd–24ab),<sup>97</sup> Brahmarākṣasa (4.24cd–26ab),<sup>98</sup> Rākṣasa (4.26cd–29),<sup>99</sup> Piśāca (4.30–34ab),<sup>100</sup> preta (4.34cd–35ab),<sup>101</sup> Kūsmāṇḍa (4.35cd–36ab),<sup>102</sup> Niśāda (4.36cd–38),<sup>103</sup> Aukiraṇa (4.39),<sup>104</sup> Vetāla (4.40),<sup>105</sup> and Pitṛgraha (4.41–42);<sup>106</sup> someone imitating in his behaviour a guru, an aged person, a sage (ṛṣi), or a Siddha should be regarded as possessed by these (4.43);<sup>107</sup> general characteristics of a person seized by a graha who cannot be treated (4.44).

Chapter five (bhūtapraṭiśedha) is concerned with the treatment of disorders caused by bhūtas.

The subjects dealt with are: measures that are effective against bhūtas who do not wish to hurt (ahimsēccha) (5.1); a compound medicine against insanity caused by a graha and against epilepsy (5.2–8ab); a recipe that drives grahas away (5.8cd–9);<sup>108</sup> the formula of siddhārthakasarpiś, a medicated ghee against grahas, in particular those

of the Asura type, and effective too in various other disorders (5.10–13ab);<sup>109</sup> a recipe with similar properties (5.13cd–14);<sup>110</sup> a recipe for pills (guḍa) against insanity and other disorders (5.15–17); a recipe against insanity caused by Skanda and possession (āveśa) by Piśācas, Rākṣasas and Devagrahas (5.18); the formulae of bhūtarāvaghṛta, effective against grahas (5.19), and mahābhūtarāvaghṛta, effective against grahas, insanity, kuṣṭha, and fever (5.20); the physician should soothe grahas, on the days they prefer for their attacks, with bali and homa offerings, with presents to their liking, etc. (5.21–23);<sup>111</sup> particularities regarding the suitable places and quarters of the sky for bali offerings to the various groups of grahas (5.24–28ab);<sup>112</sup> the appropriate materials for bali offerings to Devagrahas (5.28cd–31ab),<sup>113</sup> Daityas (5.31cd),<sup>114</sup> Nāgas (5.32–34ab),<sup>115</sup> Yakṣas (5.34cd–37ab),<sup>116</sup> Brahmarākṣasas (5.37cd–40ab), Rākṣasas (5.40cd–44ab),<sup>117</sup> and Piśācas (5.44cd–47);<sup>118</sup> materials to be avoided (5.48–49);<sup>119</sup> religious measures,<sup>120</sup> consisting of mantras invoking the Dvādaśabhujā Īśvara,<sup>121</sup> who is (also called) Āryāvalokita Nātha,<sup>122</sup> the (mantra or dhāraṇī called) sarvavyādhikitsā,<sup>123</sup> and the Mahāvīdyā (called) Māyūrī,<sup>124</sup> as well as the worship of Bhūteśa,<sup>125</sup> Sthāṇu,<sup>126</sup> and the latter's attendants, the Pramathas;<sup>127</sup> siddhamantras should also be muttered (5.50–52); the treatments described in the next two chapters may be employed too (5.53).

Chapter six (unmādapratīṣedha) is about insanity (unmāda) and its treatment.<sup>128</sup>

The subjects dealt with are: the six types of unmāda, caused by one doṣa, an accumulation (nicaya) (of all three doṣas), mental affliction (ādhi),<sup>129</sup> and poisonous substances (6.1ab);<sup>130</sup> unmāda is defined as a mental type of mada,<sup>131</sup> brought about by doṣas which have deviated from their proper pathways (6.1cd);<sup>132</sup> the general aetiology, pathogenesis and symptomatology of unmāda (6.2–6c);<sup>133</sup> the symptomatology of unmāda due to vāta (6.6d–10ab),<sup>134</sup> pitta (6.10cd–11),<sup>135</sup> kapha (6.12–13);<sup>136</sup> the incurable type caused by all the doṣas together (6.14);<sup>137</sup> the symptoms of the psychogenic type (6.15–16)<sup>138</sup> and of the incurable type caused by poison (6.17);<sup>139</sup> general therapeutic measures (6.18–22ab);<sup>140</sup> a medicated ghee (6.22cd–23ab);<sup>141</sup> the formulae of brāhmīghṛta (6.23cd–26ab),<sup>142</sup> kalyāṇakasarpis (6.26cd–31),<sup>143</sup> mahākalyāṇakasarpis (6.32–34ab),<sup>144</sup> and mahāpaiśācakaghṛta (6.34cd–38ab);<sup>145</sup> a number of recipes (6.38cd–43);<sup>146</sup> fumigations to be employed in unmāda brought about by vāta and pitta (6.44a–c); the ghees called tiktaka<sup>147</sup> and jivānīya, and miśrakasneha,<sup>148</sup> as well as particular articles of diet, are to be recommended in unmāda due to pitta (6.44d–45);<sup>149</sup> treatment by phlebotomy (6.46ab);<sup>150</sup> treatment by a diet rich in fat meat and by keeping the patient in a place free from draught (6.46cd);<sup>151</sup> treatment by measures that terrify the patient (6.47–53ab);<sup>152</sup> a patient suffering from being deprived of something precious or dear should be consoled (6.53cd–54ab);<sup>153</sup> disorders caused by grief, fear, etc., should be treated by inducing an opposite mood (6.54cd–55ab);<sup>154</sup> when bhūtas are involved too, the measures described in the bhūtapratīṣedha chapter<sup>155</sup> should be employed, next to bali offerings (6.55cd–58);<sup>156</sup> conditions preventing the occurrence of unmāda (6.59);<sup>157</sup> the signs indicating that unmāda has been cured (6.60).<sup>158</sup>

Chapter seven (apasmārapratishedha) is about epilepsy (apasmāra) and related syndromes and their treatment.<sup>159</sup>

The subjects dealt with are: the definition of apasmāra as loss of memory (smṛtyapāya);<sup>160</sup> the aetiology and pathogenesis of the disease (7.1–2);<sup>161</sup> the general symptoms (7.3–5ab);<sup>162</sup> the four types of apasmāra: caused by each of the doṣas singly and all three jointly (7.5cd);<sup>163</sup> the prodromes (7.6–8);<sup>164</sup> the symptoms of apasmāra due to vāta (7.9–12ab),<sup>165</sup> pitta (7.12cd–13),<sup>166</sup> and kapha (7.14–15a);<sup>167</sup> the type caused by all the doṣas should be given up (7.15b);<sup>168</sup> general therapeutic measures to be adopted first (7.15cd–16ab);<sup>169</sup> general measures in apasmāra brought about by vāta, pitta and kapha respectively (7.16cd–17ab);<sup>170</sup> appeasing (saṃśamana) medicines as the second stage of treatment (7.17cd–18ab);<sup>171</sup> a medicated ghee (7.18cd–19ab);<sup>172</sup> the formula of mahāpañcagavyagṛṭa (7.19cd–24ab);<sup>173</sup> another medicated ghee (7.24cd–25ab);<sup>174</sup> a recipe (7.25cd–26ab);<sup>175</sup> a medicated ghee against apasmāra due to vāta and pitta (7.26cd–27);<sup>176</sup> a medicated milk preparation with the same action (7.28ab);<sup>177</sup> a medicated ghee (7.28cd–29ab); the bile of particular animals is useful in an errhine (7.29cd–30ab);<sup>178</sup> an oil prepared with the bile of particular animals (7.30cd–31ab);<sup>179</sup> a medicated oil to be used as an errhine (7.31cd–32); materials of animal origin to be employed in fumigation (7.33);<sup>180</sup> more prescriptions (7.34);<sup>181</sup> a patient with apasmāra should be treated with rasāyana measures<sup>182</sup> and protected from dangers like (falling into) fire, water, etc.<sup>183</sup> (7.35–36); the patient should be comforted when the attack has passed away (7.37).

Chapter eight (vartmarogavijñāniya) is about diseases of the eyelids (vartman).

The subjects dealt with are: the pathogenesis of eye diseases in general (8.1–3a); the symptoms of three diseases of the eyelids caused by vāta: kṛcchronmīla (8.3–4),<sup>184</sup> nimeṣa (8.5a–c),<sup>185</sup> and vātahata (8.5d–6ab);<sup>186</sup> the symptoms of three diseases caused by pitta: kumbhīpitikā (8.6cd–7ab),<sup>187</sup> pittotkliṣṭa (8.7cd–8ab),<sup>188</sup> and pakṣmaśāta (8.8cd–9ab);<sup>189</sup> the symptoms of three diseases caused by kapha: pothakī (8.9cd–10ab),<sup>190</sup> kaphotkliṣṭa (8.10cd),<sup>191</sup> and laṅgaṇa (8.11);<sup>192</sup> the symptoms of three diseases caused by blood: utsaṅga (8.12a–c),<sup>193</sup> utkliṣṭa (8.12cd),<sup>194</sup> and arśas (8.13);<sup>195</sup> the symptoms of añjananāmikā (8.14),<sup>196</sup> bisavartman (8.15),<sup>197</sup> utkliṣṭavartman (8.16),<sup>198</sup> śyāvavartman (8.17ab),<sup>199</sup> śliṣṭa(vartman) (8.17cd),<sup>200</sup> sikatāvartman (8.18a–c),<sup>201</sup> kardama (8.18cd),<sup>202</sup> bahala (8.19ab),<sup>203</sup> kukūṇaka (8.19cd–20),<sup>204</sup> pakṣmoparodha (8.21–22),<sup>205</sup> alajī (8.23),<sup>206</sup> and arbuda (8.24);<sup>207</sup> these are the twenty-four diseases of the eyelids (8.25ab);<sup>208</sup> the first disease of the list is curable by remedial measures; the next two diseases and arśas should be given up;<sup>209</sup> pakṣmoparodha is amenable to palliative treatment;<sup>210</sup> the remaining ones require surgical treatment (8.25cd–26ab); pakṣmasadana<sup>211</sup> requires crushing (kuṭṭayati) and arbuda excision;<sup>212</sup> laṅgaṇa,<sup>213</sup> kumbhikā,<sup>214</sup> bisa,<sup>215</sup> utsaṅga,<sup>216</sup> añjanā<sup>217</sup> and alajī should be incised; pothakī,<sup>218</sup> śyāva(vartman),<sup>219</sup> sikatā(vartman),<sup>220</sup> śliṣṭa(vartman),<sup>221</sup> the four kinds of utkliṣṭa,<sup>222</sup> kardama,<sup>223</sup> bahala,<sup>224</sup> and kukūṇaka<sup>225</sup> should be scarified (8.26cd–28).

Chapter nine (vartmarogapratīṣedha) is concerned with the treatment of the diseases of the eyelids.<sup>226</sup>

The subjects dealt with are: the treatment of kṛcchraṇmīla (9.1); the treatment of kumbhīkā after scarification (9.2);<sup>227</sup> the technique of surgical treatment of kumbhīkā and other diseases of the eyelids: incision of the eyelid with the maṇḍalāgra, followed by scarification; after-treatment (9.3–9ab);<sup>228</sup> the signs of proper scarification (9.9cd–10ab);<sup>229</sup> the signs of excessive scarification; the treatment of that condition (9.10cd–14);<sup>230</sup> the treatment of firm and elevated pustules (piṭikā) by incision with the vṛhivaktra<sup>231</sup> and squeezing the contents out, followed by the measures described in the context of scarification (9.15);<sup>232</sup> these procedures are to be employed whenever scarification and incision are carried out (9.16ab); the treatment of pittotkliṣṭa and asrotkliṣṭa<sup>233</sup> (9.16cd–18ab),<sup>234</sup> pakṣmasadana<sup>235</sup> (9.18cd–20), pothakī (9.21–22ab),<sup>236</sup> kaphotkliṣṭa (9.22cd–23),<sup>237</sup> laṅgaṇa (9.24ab),<sup>238</sup> utsarigā<sup>239</sup> and añjananāmikā<sup>240</sup> (additional verse),<sup>241</sup> and kukūṇa (9.24cd–33ab);<sup>242</sup> a recipe to be employed in cases of kukūṇa and pothakī (9.33cd–34ab); the treatment of pakṣmarodha<sup>243</sup> (9.34cd–39);<sup>244</sup> the technique of cauterization of the eyelid in pakṣmarodha (9.40–41a);<sup>245</sup> special rules for the application of cautery in cases of alajī and arbuda (9.41b–d).

Chapter ten (sandhisitāsarogavijñānīya) is about the diseases of the junctures (sandhi), and those of the white (sita) and black (asita) parts of the eyes.<sup>246</sup>

The subjects dealt with are: the pathogenesis and symptoms of jalāsraṇa, caused by vāta (10.1–2ab);<sup>247</sup> the symptoms of kaphāsraṇa (10.2cd);<sup>248</sup> the symptoms of upanāḥa, caused by kapha (10.3–4ab);<sup>249</sup> the symptoms of raktāsraṇa, caused by blood (10.4cd);<sup>250</sup> the symptoms of parvaṇī (10.5),<sup>251</sup> pūyāsraṇa (10.6),<sup>252</sup> pūyālasa (10.7),<sup>253</sup> alajī (10.8ab),<sup>254</sup> and kṛmigranthi (10.8cd–9ab);<sup>255</sup> (among these nine diseases of the junctures) upanāḥa, kṛmigranthi, pūyālasaka, and parvaṇī require surgical treatment; four, along with alajī,<sup>256</sup> should be given up when a discharge (āsrava) is present (10.9cd–10ab); the symptoms of śuktikā, a disease of the white part, caused by pitta (10.10cd–11),<sup>257</sup> and śuklārman, caused by kapha (10.12a–c);<sup>258</sup> the symptoms of (the types of arman called) balāsagrathita (10.12cd–13ab)<sup>259</sup> and piṣṭaka (10.13cd);<sup>260</sup> the symptoms of sirotpāta, caused by blood (10.14),<sup>261</sup> sirāharṣa, which develops when sirotpāta is neglected (10.15),<sup>262</sup> sirājāla (10.16ab),<sup>263</sup> śonitārman (10.16cd),<sup>264</sup> arjuna (10.17ab),<sup>265</sup> prastāryarman, caused by all the doṣas, together with blood (10.17cd–18a),<sup>266</sup> snāvārman (10.18b),<sup>267</sup> adhimāṃsārman (10.18cd–19a),<sup>268</sup> and sirāpiṭikā (10.19);<sup>269</sup> (among these thirteen diseases of the white part) śukti(kā), (sirā)harṣa, sirotpāta, piṣṭaka, (balāsa)grathita, and arjuna should be treated with medicines,<sup>270</sup> while the remaining seven require surgical treatment,<sup>271</sup> unless they have developed recently, which makes them suitable to medicinal therapy; the five kinds of arman need excision,<sup>272</sup> but under certain circumstances, for example, when they have reached the black part or the pupil, they ought to be given up (10.20–22ab); the symptoms of kṣataśukra, caused by pitta; the three stages of

this disease, characterized by successive invasion of the three paṭalas;<sup>273</sup> the degrees of curability (10.22cd–25ab);<sup>274</sup> the symptoms of śuddhaśukra, caused by kapha (10.25cd),<sup>275</sup> those of ajakā, caused by blood, which is incurable (10.26),<sup>276</sup> and those of sirāśukra, due to all three doṣas, together with blood, and to be given up as incurable (10.27–28ab);<sup>277</sup> the symptoms of the incurable type of śukra that develops on account of pākātyaya (10.28cd–30ab);<sup>278</sup> other complications of śukra, to be given up by the physician (10.30cd–31); the five diseases of the black part and their degrees of curability have thus been discussed (10.32).

Chapter eleven (sādhisitātarogapratīśedha) is about the treatment of the diseases of the junctures, and those of the white and the black parts of the eyes.<sup>279</sup>

The subjects dealt with are: the treatment of upanāha (11.1–2),<sup>280</sup> parvaṇī (11.3–4ab),<sup>281</sup> pūyāśa (11.4cd–6ab),<sup>282</sup> kṛmigranthi (11.6cd–7ab),<sup>283</sup> śukti (11.7c),<sup>284</sup> balāśa<sup>285</sup> and piṣṭaka<sup>286</sup> (11.7d–9), sirotpāta,<sup>287</sup> sirāharṣa,<sup>288</sup> sirājāla,<sup>289</sup> and arjuna<sup>290</sup> (11.10–12); among the five types of arman, those which are thin (tanu), turbid like smoke (dhūmāvīla), red (rakta), and resembling thick sour milk (dadhinibha) should be managed in the same way as śukra (11.13);<sup>291</sup> the surgical removal of an arman (11.14–19);<sup>292</sup> after-treatment<sup>293</sup> (11.20–22); the procedure, when carried out correctly, results in well-being (11.23a);<sup>294</sup> the treatment that is necessary when not enough or too much of the arman has been cut off (11.23b–d);<sup>295</sup> remedial measures in a series of diseases brought about by kapha; remedial measures against a remnant of an arman (11.24–25ab);<sup>296</sup> three scarifying añjanas, recommended by Nimi (11.25cd–27); sirājāla, resistant against scarificatory treatment, should be managed like an arman; the treatment of sirāpiṇkā (11.28);<sup>297</sup> the treatment of śukra in general and of its avraṇa and savraṇa types<sup>298</sup> (11.29–48);<sup>299</sup> sirāśukra requires the same treatment as (sa)vraṇaśukra (11.49ab); the recipe of an excellent añjana (11.49cd–50); when the desired effect fails to occur, one should treat sirāśukra surgically, like an arman;<sup>300</sup> the same applies to ajakā<sup>301</sup> (11.51ab); measures for relief of pain when treatment is unsuccessful<sup>302</sup> in cases of ajakā, śukra, and related disorders (11.51cd–52ab); the disgusting aspect of śukra may be diminished by making it more elevated (utsedhasādhana) (11.52cd); an añjana against the discoloration (vaivarṇya) of incurable śukras; the same añjana, when regularly applied, cures curable śukras (11.53–54); the treatment of ajakā (11.55–58ab); the general treatment of śukra (11.58c–f).

Chapter twelve (dr̥ṣṭirogavijñānīya) is about the diseases of the dr̥ṣṭi.<sup>303</sup>

The subjects dealt with are: a doṣa that, following the sirās (in their course towards the eyes), has settled in the first paṭala, makes the objects of vision (rūpa) indistinct (avyakta), though they, for some unknown reason, may remain distinct too (12.1);<sup>304</sup> after the doṣa has reached the second paṭala, one sees objects that do not exist; those actually present nearby are seen with difficulty, those distant or small are not seen at all;<sup>305</sup> and those that are distant or near may be seen as being near or distant respectively (12.2–3ab);<sup>306</sup> when the doṣa has the form of a circle (maṇḍala), one perceives the objects as if they were circular; one sees them double when the doṣa is located in the middle of the dr̥ṣṭi, or manifold when it is present at several places; when it is present



in the interior, small things appear to be large, large things small; when the doṣa is located in the lower part, near objects remain invisible; when it is located in the upper part, distant objects remain invisible, and when it is located laterally, lateral objects; this disease is called timira (12.3cd–5);<sup>307</sup> (the stage called) kācatā (having a glass-like aspect) develops when the doṣa has settled in the third paṭala;<sup>308</sup> only objects in the upper half of the field of vision can be seen in this condition, and they appear as being covered by a thin cloth; the dr̥ṣṭi<sup>309</sup> assumes the colour of the doṣa responsible; gradually, the dr̥ṣṭi loses its normal function<sup>310</sup> (12.6–7ab); when this disorder is neglected and the doṣa has succeeded in reaching the fourth paṭala, it may come to cover the whole disc (maṇḍala) of the dr̥ṣṭi, thus bringing about liṅganāśa (12.7cd–8ab);<sup>311</sup> the symptoms of timira, kāca and liṅganāśa due to vāta (12.8cd–12a);<sup>312</sup> the symptoms of gambhīrā dr̥ṣ, a disorder caused by vāta (12.12);<sup>313</sup> the symptoms of timira, kāca and liṅganāśa due to pitta (12.13–14),<sup>314</sup> followed by the symptoms of the disorders called hrasvā<sup>315</sup> and pittavidagdā (dr̥ṣṭi)<sup>316</sup> (12.15–16ab); the symptoms of timira, kāca and liṅganāśa due to kapha (12.16cd–20ab),<sup>317</sup> blood (12.20cd–21),<sup>318</sup> a combination of two doṣas, and all doṣas together<sup>319</sup> (12.22–23ab); the symptoms of patients who are called nakulāndha (12.23cd–24ab)<sup>320</sup> and doṣāndha<sup>321</sup> (12.24cd–26ab); the symptoms of the disorders called uṣṇavidagdā dr̥ṣṭi<sup>322</sup> and amlavidagdā dr̥ṣṭi<sup>323</sup> (12.26cd–29ab), dhūmāra (12.29cd–30ab),<sup>324</sup> and aupasargikaliṅganāśa (12.30cd–32);<sup>325</sup> cases of liṅganāśa, those by kapha excepted, should be given up, as well as gambhīrā and hrasvā (dr̥ṣṭi); the six types of kāca and nakulāndha<sup>326</sup> are amenable to palliative treatment; the remaining twelve disorders are curable;<sup>327</sup> thus the twenty-seven diseases of the dr̥ṣṭi have been discussed (12.33).<sup>328</sup>

Chapter thirteen (timirapratīṣedha) is concerned with the treatment of timira.<sup>329</sup>

The subjects dealt with are: the terrible disease called timira should quickly be treated, because, on neglect, it develops into kāca, and, kāca, in its turn, into blindness (āndhya) (13.1); a recipe against timira (13.2–4ab); a recipe against timira, kāca, raktarājī,<sup>330</sup> and headache (13.4cd–6ab); a formula against various disorders, also effective against the eye diseases called śukra, timira, naktāndhya,<sup>331</sup> uṣṇadāha,<sup>332</sup> and amladāha (13.6cd–10ab);<sup>333</sup> a recipe against timira (13.10cd–12ab);<sup>334</sup> the formula of mahātraiphalaghrta, useful in all eye diseases (13.12cd–14ab);<sup>335</sup> the way to use this ghee; when taken properly, it confers, as Nimi assures, an eyesight like that of Suparṇa<sup>336</sup> (13.14cd–16ab); a series of recipes against timira, containing triphalā as their main ingredient (13.16cd–19);<sup>337</sup> a recipe against timira, containing many inorganic substances;<sup>338</sup> its preparation requires an andhamūṣa<sup>339</sup> (13.20–22); a recipe against various eye diseases, to be used during the conjunction of the moon with Aśvinī<sup>340</sup> (13.23–24); the recipe of a cūrṇa that cures all kapha disorders, to be prepared under the nakṣatra Citrā<sup>341</sup> (13.25);<sup>342</sup> the recipe for an añjana with eighty qualities; the ingredients of this collyrium should be crushed under the nakṣatras Citrā, Aśvinī or Puṣya; it cures all six kinds of timira and was proclaimed by Cakṣuṣeṇa (two additional verses); the recipe for an añjana against all eye diseases, ascribed to Videhapati<sup>343</sup> (13.26–27); the recipe of bhāskaracūrṇa, effective against many eye diseases<sup>344</sup> (13.28–31ab);<sup>345</sup> an añjana against timira (13.31cd–33ab);<sup>346</sup> a recipe

conferring a vision as sharp as that of Garuḍa (13.33c–f); a recipe against many eye diseases; one of the ingredients is lead (sīsa) (13.34–35); a recipe against timira that contains mercury (rasendra) and lead (bhujaga) (13.36); a recipe, prepared with the burnt head of a vulture (grdhra); it confers the same sharp vision as that bird possesses (13.37); a recipe, to be prepared within the mouth of a black snake, that is effective even when the pupil (tāra) has been torn (13.38);<sup>347</sup> a recipe, prepared from mainly animal substances, that cures blindness (13.39–40);<sup>348</sup> another preparation, made with the fat (vasā) of a black snake, that cures blindness (13.41);<sup>349</sup> the añjana called apratisāra, to be employed in timira (13.42);<sup>350</sup> a pill against timira (13.43); the recipe called ṣaṇmākṣikayoga, to be used in various eye diseases (13.44); the recipe of an añjana against all diseases of the dṛṣṭi (dṛgāmaya); this collyrium consists mainly of inorganic substances (13.45); a recipe increasing the acuity of vision (13.46);<sup>351</sup> general measures against eye diseases, to be selected according to the main doṣa involved (13.47); the treatment of timira in general has been discussed now; its treatment according to the doṣa(s) will be the next subject (13.48); the treatment of timira due to vāta (13.49–50); the treatment of diseases of the supraclavicular region, in particular those of the dṛṣṭi, due to vāta and pitta (13.51–54ab); the treatment of supraclavicular diseases due to vāta and kapha (13.54cd–55); an añjana, and a pratyañjana<sup>352</sup> to be administered subsequently, against timira (13.56–57); more prescriptions against timira caused by vāta (13.58–62);<sup>353</sup> the treatment of timira due to pitta (13.63–67)<sup>354</sup> and kapha (13.68–70ab);<sup>355</sup> the vartis called vimalā and kokilā, which clear the dṛṣṭi from impurities (dṛgvaimalya) (13.70cd–71);<sup>356</sup> a varti against timira and śukra (13.72–73ab); the treatment of timira due to blood (13.73cd–74)<sup>357</sup> and to a combination of two or three doṣas (13.73cd–81ab);<sup>358</sup> the treatment of kāca (13.81cd–83ab), nakulāndha (13.83cd), doṣāndha, also called niśāndha or rātryandha (13.84–90);<sup>359</sup> dhūmara, amla-, pitta- and uṣṇavidāha<sup>360</sup> (13.91–94ab);<sup>361</sup> conditions leading to a disorder of sight similar to that in timira (13.94cd–96ab);<sup>362</sup> these conditions should be treated after ascertaining which doṣa is involved, etc. (13.96cd); the treatment of persons whose eyesight has been damaged by looking at lightning, etc.<sup>363</sup> (13.97);<sup>364</sup> the importance of protecting one's eyes (13.98); the things most suitable to protect them (13.99);<sup>365</sup> things which, according to Nimi, should be avoided in order to protect one's eyesight (13.100).

Chapter fourteen (liṅganāśapratīṣedha), on the treatment of liṅganāśa, is entirely devoted to the couching of cataract.<sup>366</sup>

The subjects dealt with are: a liṅganāśa should be treated surgically by piercing the eye when it is due to kapha and ripe (sujāta),<sup>367</sup> and when it has resulted in loss of vision (niḥprekṣya); it should also be free from the six complications, such as āvartakī, etc. (14.1); the characteristics of an unripe liṅganāśa; the problems arising from couching in such cases (14.2–3);<sup>368</sup> a liṅganāśa due to kapha is white, because kapha possesses that colour; when another doṣa dominates, the disorder called ānīlātā is present (14.4);<sup>369</sup> the characteristics of the complications called āvartakī, śarkarā, rājimatī, chinnāṇīśukā, candrakī, and chattrakī (14.5–7);<sup>370</sup> general disorders to be regarded as contra-indications for couching (14.8);<sup>371</sup> the technique of couching (14.

9–18ab);<sup>372</sup> after-care (14.18cd–22);<sup>373</sup> complications that may arise after surgical intervention;<sup>374</sup> the treatment of these complications (14.23–29);<sup>375</sup> preparations promoting the healing process and the recovery of vision (14.30–32).<sup>376</sup>

Chapter fifteen (sarvākṣirogavijñānīya) is concerned with diseases affecting the whole eye.

The subjects dealt with are: the symptoms of abhiṣyanda due to vāta (15.1–3);<sup>377</sup> when neglected, this disease develops into adhimantha;<sup>378</sup> the symptoms of adhimantha (15.3d–4);<sup>379</sup> when neglected, adhimantha develops in its turn into hatādhimantha; the symptoms of hatādhimantha (15.5);<sup>380</sup> the pathogenesis and symptoms of anyatovāta (15.6–7ab);<sup>381</sup> the symptoms of vātaparyaya (15.7cd);<sup>382</sup> the symptoms of abhiṣyanda<sup>383</sup> and adhimantha due to pitta<sup>384</sup> (15.8–10a), kapha (15.10b–12ab),<sup>385</sup> and blood (15.12cd–14);<sup>386</sup> adhimantha is more painful than (abhi)ṣyanda (15.15);<sup>387</sup> the symptoms of śuṣkāḥṣipāka, caused by vāta and pitta (15.16–17c);<sup>388</sup> (the disease called) saśopha is brought about by the three doṣas, along with blood; its symptoms (15.17d–19ab);<sup>389</sup> the symptoms of alpaśopha (15.19cd)<sup>390</sup> and akṣipākātyaya (15.20–21ab);<sup>391</sup> the pathogenesis and symptomatology of amloṣita (15.21cd–23a);<sup>392</sup> these are the sixteen diseases affecting the whole eye (15.23ab);<sup>393</sup> hatādhimantha<sup>394</sup> and akṣipākātyaya should be given up;<sup>395</sup> when badly treated, adhimantha by vāta destroys the dṛṣṭi in five days; when brought about by kapha or blood, it does so in seven and three days respectively; adhimantha due to pitta destroys the dṛṣṭi on the day it arises (sadya eva) (15.23cd–24).<sup>396</sup>

Chapter sixteen (sarvākṣirogapratiśedha) is about the treatment of diseases affecting the whole eye.

The subjects dealt with are: the treatment of all types of (abhi)ṣyanda in their prodromal stage (16.1); a recipe against all types of abhiṣyanda (16.2–3ab);<sup>397</sup> prescriptions against the various types of abhiṣyanda (16.3cd–5ab); prescriptions against abhiṣyanda in general (16.5cd–9); prescriptions against abhiṣyanda due to vāta (16.10–12);<sup>398</sup> pitta and blood (16.13–16);<sup>399</sup> kapha (16.17a–c), and all three doṣas (16.17cd); bloodletting, along with preparatory measures, dependent on the doṣa involved; after-treatment (16.18–19ab);<sup>400</sup> a paste to be applied to head and face (16.19cd–20ab); the treatments described with respect to timira should be considered too (16.20cd); in all cases of (adhi)mantha, etc., cauterization above the eyebrows is recommended (16.21); the recipes of three vartis, to be employed in eye diseases due to vāta, pitta and blood, and kapha respectively (16.22–24); the formula of pāṣupatayoga, effective against all diseases that have their origin in abhiṣyanda (16.25–27);<sup>401</sup> the treatment of śuṣkāḥṣipāka (16.28–31ab),<sup>402</sup> saśopha and alpaśopha (16.31cd–43);<sup>403</sup> amloṣita should be managed like abhiṣyanda due to pitta (16.44ab);<sup>404</sup> the eighteen diseases called pilla, which persist for a long time, consist of: the utkliṣṭas, which are caused by kapha, pitta, blood, and a combination of doṣas (nicaya),<sup>405</sup> kukūṇaka, pakṣmoparodha, śuṣkāḥṣipāka, pūyālasa, bisā(vartman), pothakī, amloṣita, alpa(śopha), and the various types of (abhi)ṣyanda and (adhi)mantha, those by vāta excepted (16.44cd–46ab);<sup>406</sup> the treatment of each of these diseases has already been discussed, but their general treatment,

once they have developed into pilla, will be the next subject (16.46cd–47ab); recipes against forms of pilla and loss of the eyelashes (16.47cd–59); pūyālasa, if not cured in this way, should be cauterized with a very thin śalākā (16.60ab); the ninety-four eye diseases have been dealt with now, with regard to their aetiology, symptomatology and treatment (16.60cd–61ab); rules concerning diet and behaviour which help to protect the eyes against diseases (16.61cd–65); the two broad-based sirās which go from the middle of the feet to the eyes carry medicinal preparations, applied to the feet, to the eyes (16.66); corruption of these sirās results in corruption of the eyes; one should therefore always consider what is beneficial to the eyes, wear shoes, practise inunction of the feet, keep them clean, etc. (16.67).

Chapter seventeen (kaṇṇarogavijñānīya) is concerned with diseases of the ears.

The subjects dealt with are: the aetiology and symptomatology of (kaṇṇa)śūla (piercing pain in the ears)<sup>407</sup> due to vāta (17.1–3); the symptoms of (kaṇṇa)śūla due to pitta (17.4–5ab),<sup>408</sup> kapha (17.5cd–6ab),<sup>409</sup> blood (17.6cd–7ab),<sup>410</sup> and all three doṣas (17.7cd–8);<sup>411</sup> the genesis and symptomatology of kaṇṇanāda, due to vāta (17.9);<sup>412</sup> when vāta is followed by kapha, or when the disorder is neglected, the patient may become hard of hearing, and, gradually, deaf (17.10);<sup>413</sup> the genesis and symptomatology of pratīnāha, arising when kapha, desiccated by vāta, obstructs the auditory duct (17.11);<sup>414</sup> itching (kaṇḍū)<sup>415</sup> and local swelling (śopha),<sup>416</sup> two diseases caused by kapha (17.12ab); the symptoms of pūṭikarṇaka, brought about by kapha, when it is made vidagdha by pitta (17.12cd–13ab);<sup>417</sup> the symptoms of kṛṇīkarṇaka, caused by small living beings eating away an ear corrupted by vāta (17.13cd–14ab);<sup>418</sup> the lesions that result from scratching an itching ear may develop into an abscess (vidradhi); another type of abscess may also occur<sup>419</sup> (17.14cd–15a); the symptoms of kaṇṇārśas (a polyp)<sup>420</sup> and kaṇṇārbuda<sup>421</sup> (17.15b–d); kucīkarṇaka, arising when vāta narrows the auditory passage (śaṣkulī) (17.16ab);<sup>422</sup> (kaṇṇa)pippalī, a disorder in which fleshy growths of the size of a pepper (pippalī) corn appear in the meatus (17.16cd–17a);<sup>423</sup> the symptoms of vidārikā, due to all three doṣas jointly (17.17b–18);<sup>424</sup> pālīśoṣa (desiccation of the earlobes) is brought about by vāta staying in the sirās (17.19ab);<sup>425</sup> tantrikā, another disease of the earlobes caused by vāta (17.19cd);<sup>426</sup> the symptoms of paripoṭa, due to vāta again (17.20–21a);<sup>427</sup> the aetiology and symptomatology of utpāta, arising from pitta and blood (17.21b–22ab);<sup>428</sup> the symptoms of unmantha, also called gallira, due to vāta and kapha (17.22cd–23ab);<sup>429</sup> the symptoms of duḥkhavardhana, arising from the three doṣas and developing when the earlobe is badly pierced (17.23cd–24ab);<sup>430</sup> the symptoms of lehin, caused by kapha, blood, and small organisms (kṛmī) (17.24cd–25ab);<sup>431</sup> pippalī, śūla arising from all the doṣas collectively, vidāri, and kucīkarṇaka are incurable; tantrikā is amenable to palliative treatment; the other diseases are curable; thus the twenty-five diseases of the ears have been dealt with (17.25cd–26).<sup>432</sup>

Chapter eighteen (kaṇṇarogapratīṣedha) is concerned with the treatment of the diseases of the ears.

The subjects dealt with are: the treatment of kaṇṇaśūla due to vāta (18.1–5);<sup>433</sup> all

the measures against vāta diseases and pratiśyāya may also be employed (18.6ab);<sup>434</sup> things to be avoided (18.6cd); the treatment of śūla due to pitta (18.7–10),<sup>435</sup> kapha (18.11–16ab),<sup>436</sup> and blood (18.16cd);<sup>437</sup> the treatment of discharges (āsrāva), purulent or otherwise (18.17–21),<sup>438</sup> the general treatment of karṇanāda<sup>439</sup> and bādhirya<sup>440</sup> (18.22); prescriptions against karṇanāda, bādhirya<sup>441</sup> and karṇaśūla (18.23–24),<sup>442</sup> karṇaruj,<sup>443</sup> karṇasrāva,<sup>444</sup> aśruti<sup>445</sup> (18.25), and karṇanāda (18.26ab); the formula of a kṣārataila, useful in a number of diseases (18.26cd–30ab),<sup>446</sup> the treatment of numbness (supti) of the ears (18.30cd), karṇaśopha, karṇakleda (a discharging ear), and mandaśruti (hardness of hearing) (18.31ab); cases of deafness that should be given up (18.31cd); the treatment of pratīnāha (18.32–33);<sup>447</sup> the same treatment is useful when the ears are full of dirt (18.34ab); the treatment of karṇakaṇḍū (itching of the ears)<sup>448</sup> and karṇaśopha (swelling of the ear) (18.34), pūtikarṇa and kṛmīkarṇa (18.35),<sup>449</sup> karṇavidradhi (18.36),<sup>450</sup> arśas and arbuda (18.37a), vidārikā (18.37b–d), pālīśoṣa (18.38–39); prescriptions making the ears grow (18.40–41);<sup>451</sup> the surgical treatment of reduced (saṃkṣīṇa) earlobes, tantrikā, and paripōṭa (18.42);<sup>452</sup> the treatment of utpāta (18.43–44),<sup>453</sup> unmantha (18.45–46ab),<sup>454</sup> improperly pierced earlobes (18.46cd–48ab), and parilehikā (18.48cd–50);<sup>455</sup> the way to attach again an ear that has recently been cut off (18.51); after-treatment (18.52–59ab); the restoration of a cut-off nose by plastic surgery;<sup>456</sup> after-treatment (18.59cd–65); the attachment of a nose that has recently been cut off (18.66ab); the attachment of lips that have been cut off (18.66cd).<sup>457</sup>

Chapter nineteen (nāsārogaṇīyāna) is about diseases of the nose.

The subjects dealt with are: the aetiology and pathogenesis of pratiśyāya (19.1–3ab);<sup>458</sup> the symptoms of pratiśyāya due to vāta (19.3cd–5ab),<sup>459</sup> pitta (19.5cd–6ab),<sup>460</sup> kapha (19.6cd–7ab),<sup>461</sup> all the doṣas jointly (19.7cd),<sup>462</sup> and blood (19.8–9ab),<sup>463</sup> when neglected, pratiśyāya develops into duṣṭapratīśyāya;<sup>464</sup> the symptoms of this disorder and its complications (19.9cd–12);<sup>465</sup> the characteristics of the pakva (mature) stage of pratiśyāya (19.13); the aetiology, pathogenesis and symptomatology of bhr̥ṣākṣava (severe sneezing) (19.14–15);<sup>466</sup> the symptoms of nāsikāśoṣa, due to vāta and kapha (19.16–17a),<sup>467</sup> and nāsānāha, due to the same doṣas (19.17b–18ab),<sup>468</sup> the pathogenesis and symptomatology of ghr̥ṇāpāka, arising from pitta (19.18cd–19a);<sup>469</sup> the symptoms of ghr̥ṇāsrāva, arising from kapha (19.19);<sup>470</sup> the pathogenesis and symptomatology of apīnasa, due to kapha (19.20–21);<sup>471</sup> the symptoms of dīpti, due to pitta (19.22);<sup>472</sup> the pathogenesis and symptomatology of pūtināsa (19.23);<sup>473</sup> the symptoms of pūyarakta, caused by all the doṣas or a trauma (19.24);<sup>474</sup> the pathogenesis and symptomatology of puṭaka, caused by the three doṣas (19.25);<sup>475</sup> cases of arśas and arbuda of the nose should be diagnosed according to the main doṣa(s) involved (19.26ab); general symptoms of arśas<sup>476</sup> and arbuda<sup>477</sup> of the nose (19.26cd–27ab); among these eighteen diseases of the nose,<sup>478</sup> duṣṭapīnasa is amenable to palliative treatment (19.27cd).<sup>479</sup>

Chapter twenty (nāsārogaṇīyāna) is concerned with the treatment of diseases of the nose.

The subjects dealt with are: general therapeutic measures in the treatment of pīnasa (20.1–9ab);<sup>480</sup> the treatment of pratiśyāya due to vāta (20.9cd–10),<sup>481</sup> pitta<sup>482</sup> or blood (20.11–12),<sup>483</sup> kapha (20.13–14ab),<sup>484</sup> all the doṣas (20.14cd);<sup>485</sup> the treatment of duṣṭapīnasa (20.15–17),<sup>486</sup> kṣava(thu)<sup>487</sup> and puṭa(ka) (20.18–19ab), nāsāśoṣa (20.19cd–20a)<sup>488</sup> and nāsānāha (20.20b),<sup>489</sup> nāsāpāka<sup>490</sup> and dīpti<sup>491</sup> (20.20cd), pūtināsa<sup>492</sup> and apīnasa<sup>493</sup> (20.21–23ab), and pūyarakta (20.23cd–24a);<sup>494</sup> the treatment to be employed after cauterization of arśas and arbuda of the nose (20.24b–25).

Chapter twenty-one (mukharogavijñānīya) is concerned with the diseases of the oral cavity and adjacent structures (mukharoga).

The subjects dealt with are: general aetiological factors of mukharogas; kapha is usually the main doṣa (21.1–3ab); khaṇḍauṣṭha, a disease in which vāta splits the lips (21.3cd);<sup>495</sup> the symptoms of oṣṭhakopa due to vāta (21.4),<sup>496</sup> pitta (21.5),<sup>497</sup> kapha (21.5d–6ab),<sup>498</sup> all three doṣas (21.6cd–7ab),<sup>499</sup> blood (21.7cd–8ab),<sup>500</sup> muscular tissue (21.8cd),<sup>501</sup> fatty tissue (21.9ab),<sup>502</sup> a trauma (kṣata) (21.9cd–10ab),<sup>503</sup> vāta and kapha together (21.10cd);<sup>504</sup> the symptoms of gaṇḍālājī (21.11ab),<sup>505</sup> śīta(danta)<sup>506</sup> and dālana, due to vāta (21.11cd–12ab),<sup>507</sup> dantaharṣa (21.12cd–13ab),<sup>508</sup> danta-bheda (21.13cd),<sup>509</sup> (danta)cāla (21.14ab),<sup>510</sup> karāla (21.14cd),<sup>511</sup> adhidanta<sup>512</sup> or vardhana<sup>513</sup> (21.15), śarkarā<sup>514</sup> and kapālikā<sup>515</sup> (21.16–17ab), śyāva(danta), due to blood, pitta and vāta (21.17cd),<sup>516</sup> pralūna<sup>517</sup> or kṛmidantaka<sup>518</sup> (21.18–20ab), śītāda, due to kapha and blood (21.20cd–21c),<sup>519</sup> upakuṣa, due to pitta and blood (21.21cd–23ab),<sup>520</sup> dantapuppuṭa, due to kapha and blood (21.23cd–24ab),<sup>521</sup> dantavidradhī, due to the three doṣas and blood (21.24cd–25ab),<sup>522</sup> suṣira, due to pitta and blood (21.25cd–26ab),<sup>523</sup> mahāsuṣira, due to all the doṣas (21.26cd–27ab),<sup>524</sup> adhimāṃsaka, due to kapha (21.27cd–28ab),<sup>525</sup> vidarbha, caused by bruises (ghṛṣṭa) (21.28cd–29ab),<sup>526</sup> neglect of diseases of the gums, even of the curable ones, leads to the development of a subtle gati (a fistula); these fistulae are of five types (21.29cd–31ab);<sup>527</sup> the symptoms of disorders of the tongue, brought about by vāta, pitta and kapha respectively (21.31cd–32);<sup>528</sup> the symptoms of alasa, brought about by kapha and pitta (21.33);<sup>529</sup> adhijihva, brought about by kapha, pitta and blood (21.34–35ab),<sup>530</sup> and upajihva, of the same nature (21.35cd);<sup>531</sup> the symptoms of tālupitāḥ, arising from vāta (21.36),<sup>532</sup> galaśuṇḍikā, arising from kapha and blood (21.37–38ab),<sup>533</sup> tālusamḥati (21.38cd),<sup>534</sup> tālvarbuda, arising from blood (21.39ab),<sup>535</sup> kacchapa, arising from kapha (21.39cd),<sup>536</sup> (tālu)puppuṭa, arising from kapha and fatty tissue (21.40ab),<sup>537</sup> (tālu)pāka, arising from pitta (21.40cd),<sup>538</sup> tāluśoṣa, arising from vāta and pitta (21.41ab);<sup>539</sup> the general characteristics of rohiṇī (21.41cd–42ab);<sup>540</sup> the symptoms of rohiṇī due to vāta (21.42cd),<sup>541</sup> pitta (21.43),<sup>542</sup> kapha (21.44a),<sup>543</sup> blood (21.44b–d),<sup>544</sup> and all the doṣas (21.45ab);<sup>545</sup> the symptoms of (kaṇṭha)śālūka, due to the doṣas, with predominance of kapha (21.45cd–46ab);<sup>546</sup> the symptoms of vṛnda (21.46cd)<sup>547</sup> and tuṇḍikerikā (21.47);<sup>548</sup> the symptoms of galaugha (21.48),<sup>549</sup> valaya (21.49ab),<sup>550</sup> gilāyuka, due to the doṣas (21.49cd–50ab),<sup>551</sup> śataghñī (21.50cd–51ab),<sup>552</sup> galavidradhī (21.51cd–52ab),<sup>553</sup> galārbbuda, due to the doṣas (21.52cd–53ab);<sup>554</sup> the general characteristics of galagaṇḍa, brought about by vāta, kapha and fatty tissue (21.53c–f);<sup>555</sup> the symptoms of galagaṇḍa due to

vāta (21.54),<sup>556</sup> kapha (21.55)<sup>557</sup> and fatty tissue (21.56);<sup>558</sup> the symptoms of svarāhan, due to vāta (21.57);<sup>559</sup> the symptoms of mukhapāka, due to vāta (21.58–59),<sup>560</sup> and of ūrdhvagūḍa (21.60);<sup>561</sup> the symptoms of mukhapāka due to pitta (21.61),<sup>562</sup> blood (21.61d),<sup>563</sup> and kapha (21.62ab);<sup>564</sup> when mukhapāka due to kapha spreads to the interior of the cheeks, a particular kind of arbuda appears (21.62cd–63ab); the symptoms of mukhapāka arising from all the doṣas, together with blood (21.63cd); the same agents lead to pūyāsyatā in those who have an aversion to brushing their teeth (21.64ab); thus have been described the seventy-five diseases of the lips, cheeks, teeth, roots of the teeth, tongue, palate, throat, and the whole oral cavity;<sup>565</sup> their numbers are eleven,<sup>566</sup> one,<sup>567</sup> ten,<sup>568</sup> thirteen,<sup>569</sup> six,<sup>570</sup> eight,<sup>571</sup> eighteen,<sup>572</sup> and eight<sup>573</sup> respectively (21.64cd–66ab); incurable among them are: karāla, oṣṭha(kopa) due to muscular tissue and to blood, the types of arbuda, with the exception of that due to jala, kacchapa, tālupiṭikā, galaugha, mahāsuśira, svaraghna, ūrdhvagūḍa, śyāva(danta), śataghnī, valaya, alasa, nāḍī arising from all the doṣas, oṣṭhakopa arising from all the doṣas, rohiṇī due to blood and to all the doṣas, dantabheda when the teeth have burst, upajihvikā when subject to pāka, and, finally, galagaṇḍa and svarabhraṁśin,<sup>574</sup> when accompanied by difficulties in breathing and lasting for longer than a year (21.66b–69ab); (danta)harṣa and (danta)bheda are amenable to palliative treatment; the other diseases may be cured, by means of surgery or by medicines (21.69cd).<sup>575</sup>

Chapter twenty-two (mukharogapratīṣedha) is about the treatment of the diseases of the oral cavity and adjacent structures.

The subjects dealt with are: the general treatment of khaṇḍauṣṭha (22.1–2); the treatment of khaṇḍauṣṭha due to vāta (22.3–5ab),<sup>576</sup> pitta or a trauma (22.5cd–7),<sup>577</sup> kapha (22.7d–8),<sup>578</sup> fatty tissue (22.9);<sup>579</sup> the treatment of jalārbuda (22.10); the treatment of gaṇḍālājī (22.11ab); the treatment of śītadanta (22.11cd–13ab),<sup>580</sup> dantahaṛṣa<sup>581</sup> and dantabheda<sup>582</sup> (22.13cd–14ab), pracaladvija<sup>583</sup> (22.14cd–15);<sup>584</sup> a supernumerary tooth (adhidantaka) should, after preparatory treatment, be extracted; the after-treatment is like that of kṛmidanta (22.16–17ab);<sup>585</sup> the treatment of dantaśarkarā<sup>586</sup> (22.17cd–18ab)<sup>587</sup> and kapālikā (22.18cd);<sup>588</sup> the treatment of kṛmidantaka (22.19–22);<sup>589</sup> when this treatment is not successful, the tooth should be extracted, even if not loose, with a saṁdamśaka or dantanirghātana;<sup>590</sup> after-treatment (22.23–25);<sup>591</sup> patients unfit to undergo extraction (22.26ab); upper teeth should never be extracted, because this would result in many complications (22.26cd–27ab);<sup>592</sup> the treatment of śītāda (22.27cd–28),<sup>593</sup> upakuśa (22.29–32ab),<sup>594</sup> dantapupūṭaka (22.32cd–33ab),<sup>595</sup> vidradhi (22.33cd–34),<sup>596</sup> suśira (22.35–37ab),<sup>597</sup> adhimāṁśaka (22.37cd–38),<sup>598</sup> vidarbha (22.39),<sup>599</sup> nāḍī (22.40–42ab),<sup>600</sup> the varieties of kaṭṭaka (22.42cd–44ab),<sup>601</sup> jihvālāsa (22.44cd),<sup>602</sup> upajihvikā (22.45–46ab),<sup>603</sup> and (gala)śuṇḍikā (22.46cd–50ab);<sup>604</sup> the surgical treatment described in the context of galaśuṇḍikā may also be applied in cases of saṁghāta, pupūṭa and kūrma<sup>605</sup> (22.50cd);<sup>606</sup> the treatment of the āma and pakva stages of tālupāka (22.51–52);<sup>607</sup> the treatment of tāluśoṣa (22.53–54ab);<sup>608</sup> the general treatment of diseases of the throat (22.54cd–58ab); the treatment of rohiṇikā due to vāta (22.58cd–59),<sup>609</sup> pitta (22.60–61ab),<sup>610</sup> blood (22.61cd),<sup>611</sup> and kapha (22.62–63ab);<sup>612</sup> the same treatment

(as in rohiṇī due to kapha) may be applied in cases of vṛnda, śālūka, tuṇḍikerī, and gilāyu<sup>613</sup> (22.63cd);<sup>614</sup> the treatment of (gala)vidradhi (22.64);<sup>615</sup> the treatment of galaṅgaṇḍa due to vāta (22.65–68),<sup>616</sup> kapha (22.69–71),<sup>617</sup> and fatty tissue (22.72);<sup>618</sup> when galaṅgaṇḍa does not respond to these therapeutic procedures, it should be managed like a vṛaṇa (22.73ab); the general treatment of mukhapāka (22.73cd–74);<sup>619</sup> the treatment of mukhapāka due to vāta (22.75),<sup>620</sup> pitta<sup>621</sup> and blood (22.76a), kapha (22.76b–d),<sup>622</sup> and all the doṣas (22.77ab);<sup>623</sup> the treatment of an arbuda due to mukhapāka (22.77cd–79ab); the treatment of pūtivadana<sup>624</sup> (22.79cd–81ab); the formula of a compound drug against many mukharogas, devised by Videhādhipati (22.81cd–83); the formula of a compound medicine against all mukharogas, which, moreover, confers the sight of a vulture and the hearing of a hog (22.84–86); a recipe against moles, etc. (vyāṅga, nīlī, mukhadūṣikā), of the face, making this as lovely as the moon (22.87); a formula effective against all mukharogas, in particular loose teeth (22.88–89); a recipe for pills, to be held in the mouth, against all diseases of the oral cavity (22.90–94); a related recipe for a medicated oil, particularly effective in making the teeth fixed and firm (22.95); these pills and the oil should be used daily to ensure health and steadiness of the teeth (22.96); the recipe of a kavala against all mukharogas (22.97); a cūrṇa, mixed with honey, against diseases of the teeth (22.98);<sup>625</sup> similar preparations, called kālaka (27.99)<sup>626</sup> and pītaka (22.100);<sup>627</sup> a rasakriyā against diseases of the throat (22.101); a recipe preventing the occurrence of mukharogas (22.102); recipes against mukhapāka (22.103), all mukharogas (22.104), mukhapāka and nādivraṇa (22.105); a series of similar prescriptions (22.106); a gaṇḍūṣa that strengthens weak teeth (22.107); diseases affecting the oral cavity, roots of the teeth and the throat usually show a predominance of kapha and blood; for that reason bloodletting is useful (22.108); general measures against these diseases (22.109); articles of diet, etc., which remove kapha (22.110); diseases of the throat, when neglected, obstruct the kind of vāta called prāṇa, and should therefore be treated without any delay (22.111).

Chapter twenty-three (śīrorogavijñānīya) is about diseases of the head.

The subjects dealt with are: the general aetiology of diseases of the head (23.1–3c); the symptomatology of śīrastāpa (headache) due to vāta (23.3d–7c);<sup>628</sup> a variety affecting half of the head only and called ardhāvabhedaka (23.7cd–8);<sup>629</sup> the symptoms of śīro'bhitāpa (= śīrastāpa) due to pitta (23.9),<sup>630</sup> kapha (23.10–11ab),<sup>631</sup> blood (23.11c),<sup>632</sup> and all the doṣas jointly (23.11d);<sup>633</sup> the aetiology, pathogenesis and symptomatology of śīro'bhitāpa caused by small organisms (jantu) and accompanied by excitement of blood, muscular tissue and all the doṣas (23.12–15ab);<sup>634</sup> the symptoms of śīraḥkampa, a disorder with predominance of vāta (23.15cd);<sup>635</sup> the symptoms and prognosis of śāṅkhaka, due to the three doṣas and blood, with a predominance of pitta (23.16–17);<sup>636</sup> the symptoms of sūryāvarta, due to vāta, with pitta as the secondary (anubaddha) doṣa (23.18–20a);<sup>637</sup> these are the ten śīrorogas;<sup>638</sup> the nine diseases of the scalp (kapālaroga)<sup>639</sup> will be described next (23.20); the symptoms of upaśīrṣaka, arising from corrupted vāta (23.21);<sup>640</sup> dependent on the doṣa that predominates, it is classified as a piṭikā, arbuda or vidradhi (23.22ab); the characteristics of aruṃṣikā,



which are boils (piṭikā), due to pitta, blood, kapha, and small organisms (jantu) (23.22cd–23ab);<sup>641</sup> the symptoms of dāruṇaka, due to kapha and vāta (23.23cd–24ab);<sup>642</sup> the pathogenesis of indralupta<sup>643</sup> (alopecia), also called rujyā<sup>644</sup> or cācā,<sup>645</sup> primarily due to pitta and vāta, secondarily to kapha and blood (23.24cd–26ab); khalati<sup>646</sup> (baldness) has the same origin (as indralupta), but develops gradually (23.26cd);<sup>647</sup> the characteristics of khalati due to vāta, pitta and kapha; the colour of the skin agrees with that of the main doṣa involved (23.27); the characteristics of khalati due to all the doṣas (23.28a); incurable types of khalati (23.28b–d); the aetiology and pathogenesis of palita (grey hair) (23.29); the characteristics of palita due to vāta, pitta, kapha, and all the doṣas (23.30–31ab);<sup>648</sup> the characteristics of another type of palita, arising from śīronuj (headache) (23.31cd); khalati and palita caused by the three doṣas are incurable (23.32ab); grey hair, developing naturally, requires rasāyana treatment (23.32cd).

Chapter twenty-four (śīrorogapratīṣedha) is about the treatment of diseases of the head.

The subjects dealt with are: the treatment of śīro'bhitāpa due to vāta (24.1–9ab),<sup>649</sup> ardhāvabhedaka (24.9cd–10),<sup>650</sup> sūryāvarta (24.11ab),<sup>651</sup> śīro'bhitāpa due to pitta (24.11cd–13ab),<sup>652</sup> kapha (24.13cd–14c),<sup>653</sup> all the doṣas (24.14d),<sup>654</sup> and parasites (krmi)<sup>655</sup> (24.15–18),<sup>656</sup> the treatment of (śīraḥ)kampa (24.19ab), upaśī-rṣaka (24.19cd–20), aruṃṣikā (24.21–25ab),<sup>657</sup> and dāruṇaka (24.25cd–27);<sup>658</sup> the treatment of indralupta (24.28–32); the treatment of khalati, palita, wrinkles (vali), and discoloration of the hair (harilloman)<sup>659</sup> (24.33–34); recipes against palita (24.35–39ab),<sup>660</sup> harilloman and vali (24.39cd–40ab);<sup>661</sup> preparations making the hair grow and blacken again (24.40cd–44ab),<sup>662</sup> a prescription against all diseases of the head (24.44cd–45);<sup>663</sup> a recipe against all diseases affecting the region above the clavicles (24.46); the formula of māyūrāghṛta, to be employed in the same group of diseases (24.47–49ab);<sup>664</sup> the formula of the panacea called mahāmāyūrāghṛta, even more effective than māyūrāghṛta (24.49cd–56);<sup>665</sup> thus the 231 diseases of the region above the clavicles have been described (24.57);<sup>666</sup> these should be treated without any delay, since the root of the human body is situated above and the branches are below (24.58);<sup>667</sup> the head should be protected carefully, because it is the seat of all the senses and the prāṇas (24.59).

Chapter twenty-five (vraṇapratīṣedha) is concerned with vraṇas (wounds and ulcers) and their treatment.

The subjects dealt with are: the two groups of vraṇa: nija (endogenous), i.e., arising from the doṣas, and āgantū (exogenous),<sup>668</sup> duṣṭa (corrupted), and śuddha (clean); a duṣṭavraṇa is affected by the doṣas, while a śuddhavraṇa is not (25.1–2ab); the characteristics of a duṣṭavraṇa (25.3cd–5ab);<sup>669</sup> according to the involvement of one or more doṣas and blood, and all their combinations, duṣṭavraṇas are of fifteen types (25.5cd);<sup>670</sup> the characteristics of a vraṇa corrupted by vāta (25.5d–7ab),<sup>671</sup> pitta (25.7cd–8),<sup>672</sup> kapha (25.9),<sup>673</sup> blood (25.10),<sup>674</sup> two or more of these (corrupting agents) (25.11ab);<sup>675</sup> the characteristics of a śuddhavraṇa (25.11cd–12ab);<sup>676</sup> seats of a vraṇa are: skin, muscular tissue, sirās, snāyus, junctures, bones, the viscera, and the marmans;<sup>677</sup> the problems in treating a vraṇa increase in the mentioned order.<sup>678</sup> (25.

12cd–13ab); the characteristics of easily curable vṛaṇas (25.13cd–14), those that are difficult to cure (25.15–17), and incurable ones (25.18–19ab);<sup>679</sup> conditions making a curable vṛaṇa incurable (25.19cd–22ab);<sup>680</sup> the characteristics of a healing vṛaṇa (25.22cd–23ab);<sup>681</sup> the treatment of a vṛaṇa in the stage where local swelling (śoṣha) is present (25.23cd–25ab);<sup>682</sup> when the vṛaṇa itself and the accompanying swelling are firm on the touch, discoloured and painful, in particular when poison is present, bloodletting by means of leeches, etc., is required (25.25cd–26);<sup>683</sup> after-treatment (25.27–28); the recipe of a most efficient pradeha (plaster) against swelling (25.29);<sup>684</sup> the treatment of firm, immobile and very painful swellings and vṛaṇas with a predominance of vāta (25.30–31);<sup>685</sup> the treatment of firm swellings with only slight pain, due to vāta and kapha (25.32–33);<sup>686</sup> further treatment procedures, to be employed when the swelling does not soften (25.34ab); the swelling then subsides if the ripening process has not yet begun, but, if this process is already on its way (vidagdha),<sup>687</sup> it will go on (25.34cd);<sup>688</sup> a poultice promoting ripening (25.35);<sup>689</sup> procedures making a ripe swelling burst (dāraṇa) (25.36–37);<sup>690</sup> measures making the contents come out (25.38–40);<sup>691</sup> the treatment of very corrupted vṛaṇas (25.41);<sup>692</sup> rinsing fluids (kṣālana) and other preparations which purify corrupted vṛaṇas (25.42–44);<sup>693</sup> the treatment of vṛaṇas corrupted by vāta (25.45)<sup>694</sup> and by pitta and blood (25.46ab);<sup>695</sup> measures making deep vṛaṇas in non-fleshy parts of the body granulate (utsādana) (25.46cd–48ab);<sup>696</sup> and elevated vṛaṇas in tender and fleshy parts less elevated (avasādana) (25.48cd–49ab);<sup>697</sup> elevated and firm vṛaṇas of long standing should be purified with caustics (25.49cd–50ab);<sup>698</sup> indications for cauterization (agnikarman) (25.50cd–51);<sup>699</sup> after purification by these methods, healing (ropaṇa) measures should be employed (25.52ab); preparations which promote healing by stimulating granulation (25.52cd–56ab);<sup>700</sup> similar prescriptions for vṛaṇas corrupted by blood and bile, kapha and vāta (25.56cd–57); an excellent preparation promoting granulation (25.58); preparations that stimulate the growth of new skin (25.59–61ab);<sup>701</sup> the recipe of an ointment (lepa) normalizing the colour (savarṇakaraṇa) of the new skin (25.61cd–62ab);<sup>702</sup> preparations stimulating the growth of new hair (25.62cd–63);<sup>703</sup> regarding the dietary regimen,<sup>704</sup> the rules of the chapter on śastrakarman<sup>705</sup> should be followed (25.64ab); drugs useful in the treatment of vṛaṇas due to vāta, pitta, kapha, or a combination of doṣas (25.64cd–65);<sup>706</sup> these drugs may be employed in making seven kinds of preparation: prakṣālana (rinsing fluid), lepa (ointment), gṛṭa (ghee), taila (oil), rasakriyā (inspissated juice), cūrṇa (powder), and varti (25.66); the formula of a medicated ghee that purifies and heals vṛaṇas with narrow openings, those located in a marman, and vṛaṇas that are discharging, deep, very painful, or fistulating (25.67).<sup>707</sup>

Chapter twenty-six (sadyovraṇapratīṣedha) is concerned with fresh wounds (sadyovraṇa) and their treatment.

The subjects dealt with are: fresh wounds, which are of traumatic (abhighāta) origin and occur suddenly (sadyas), are of eight types: ghrṣṭa, avakṛta, vicchinna, pravīlambita, pātita, viddha, bhinna, and vidalita (26.1–2c);<sup>708</sup> the characteristics of these eight types (26.2d–5);<sup>709</sup> the treatment of severe pain (26.6)<sup>710</sup> and heat (kṣatoṣman) in

an (already) extending wound (26.7);<sup>711</sup> preparations promoting the closing up (saṃdhāna) of long wounds (26.8);<sup>712</sup> the treatment of swelling (saṃrambha) (26.9); the same treatment is useful in the ghr̥ṣṭa and vidalita types, which are characterized by slight bleeding and a tendency to inflammation (pāka) (26.10);<sup>713</sup> the other types bleed more, which leads to excitement of vāta, resulting in its turn in severe pain; the treatment of this condition (26.11–12);<sup>714</sup> this treatment has to continue for seven days; when, after this period, the initial symptoms have lost their intensity (gatavega), one should go on with the treatment described in the preceding chapter (26.13);<sup>715</sup> this is the general line of treatment; particular cases will be discussed now (26.14ab); treatment procedures in wounds of the ghr̥ṣṭa,<sup>716</sup> avakṛtta, vicchinna and pravilambin types (26.14cd–15);<sup>717</sup> an eye that has burst (sphuṭita) is incurable; the replacement of an intact eye that has come out; after-treatment (26.16–18);<sup>718</sup> the treatment of a depressed (avasanna) eye (26.19); the after-treatment to be applied when a cut-off ear has been sewn on again (26.20ab);<sup>719</sup> the surgical procedure to be applied when the kṛkātikā has been cut and air escapes; after-treatment (26.20cd–22ab);<sup>720</sup> the surgical treatment of large wounds of the extremities; a vellita or goṣphaṇā bandage should then be applied (26.22cd–23);<sup>721</sup> the surgical treatment of testicles hanging out of the scrotum; a goṣphaṇā bandage should be applied; after-treatment (26.24–26);<sup>722</sup> the treatment of patients with a cut-off limb (26.27);<sup>723</sup> the treatment to be practised after removal of a foreign body in general (26.28ab) and after its removal from the head (26.28cd–29);<sup>724</sup> the consumption of brain tissue (mastiṣka) of animals is to be recommended after loss of this tissue (mastuluṅgasruti) in a patient (26.30ab); the treatment to be applied after removal of a foreign body from some other part of the body (26.30cd);<sup>725</sup> the treatment of bleeding and of deep wounds with a narrow opening (26.31);<sup>726</sup> the symptoms of patients with a perforating injury to the viscera (26.32–33);<sup>727</sup> the symptoms of accumulation of blood in the āmāśaya (26.34)<sup>728</sup> or pakvāśaya (26.35);<sup>729</sup> the symptoms of non-perforating injuries to one of the āśayas (receptacles) (26.36);<sup>730</sup> signs of incurability (26.37);<sup>731</sup> the treatment of the accumulation of blood (antarlohita) in āmāśaya or pakvāśaya (26.38–39);<sup>732</sup> drinking of blood is advisable when much blood has been lost (26.40ab);<sup>733</sup> injury to the bowels (koṣṭhabheda) is of two types: klišṭāntra (without perforation) and chinnāntra (with perforation); the symptoms of the latter type are more severe than those of the former; the life of a klišṭāntra patient is endangered, but a chinnāntra patient does not survive (26.40cd–41); a patient with injured bowels will survive when urine, faeces and flatus are passed along their normal pathways, and when complications do not appear (26.42);<sup>734</sup> non-injured bowels which have come out should be placed back, but not so when injured; some say that these too should be put back after having been bitten by the heads of ants (utpaṅgilaśirograsta) (26.43);<sup>735</sup> the technique of replacing the bowels (26.44–46ab);<sup>736</sup> when this replacement proves to be difficult, because the opening in the abdominal wall is too small or the bowels are too large, the wound should be enlarged (26.46cd–47ab);<sup>737</sup> closure of the wound with a suture (26.47cd–48ab);<sup>738</sup> after-treatment (26.48cd–50ab);<sup>739</sup> a piece of fatty tissue that has come out of the abdomen may be cut off; the technique of this procedure; after-treatment (26.50cd–54);<sup>740</sup> a medicated oil promoting wound healing (26.55–56ab);<sup>741</sup> the treatment of injuries caused by blows, falls, etc. (26.56cd–57ab) and

of patients whose bodies are bruised, wasted, and damaged in the areas of vital spots (26.57cd–58).<sup>742</sup>

Chapter twenty-seven (bhaṅgapraṭiśedha) is about fractures and dislocations (bhaṅga) and their treatment.<sup>743</sup>

The subjects dealt with are: asthibhaṅga, which is caused by falls, blows, etc., is of two types: affecting or not affecting a joint (27.1ab);<sup>744</sup> the inability to flex and extend characterizes a loosened joint;<sup>745</sup> much swelling, severe pain, the inability to move, and the production of a noise on pressure are characteristic of a fracture in general;<sup>746</sup> the specific signs depend on the type of fracture present (27.1cd–3c); the treatment of the various types will now be described (27.3d–4ab); general characteristics of fractures; characteristics of patients who are difficult to treat (27.4cd–6);<sup>747</sup> particular types of fractures and dislocations which should be given up by the physician (27.7–10ab);<sup>748</sup> cartilages (taruṇāsthī) are usually bended, long bones (nalaka) broken, flat bones (kapāla) split, and the other types cracked (27.10cd–11ab);<sup>749</sup> the various corrections required (27.11cd–12);<sup>750</sup> the technique of immobilization with a kuṣā (splint); the dressing of the bandage (27.13–16ab);<sup>751</sup> the bandage should neither be too tight nor too loose (27.16cd–17ab); the number of days after which the bandage should be renewed depends on the season (27.17cd–18ab);<sup>752</sup> local after-treatment (27.18cd–20);<sup>753</sup> dietary rules for the patient (27.21);<sup>754</sup> the treatment of complicated fractures (27.22–25c);<sup>755</sup> degrees of curability, dependent on the build and age of the patient (27.25d–27ab);<sup>756</sup> patients with a fracture of the hip, thigh or lower leg should lie on a wooden plank (kapāṭa); five pegs (kīla) are necessary in these cases and also in fractures of the vertebral column, thorax and clavicles (27.27cd–29ab);<sup>757</sup> the same procedures are to be employed in dislocations (27.29cd);<sup>758</sup> dislocations of long standing should be reduced after preliminary treatment (27.30);<sup>759</sup> imperfectly healed fractures should be broken again and managed like a fresh fracture (27.31);<sup>760</sup> inflammation should always be prevented, since this would interfere with the healing process (27.32);<sup>761</sup> patients with fractures should be treated with the fatty preparations prescribed for vāta diseases, with the four types of medicines which give strength,<sup>762</sup> and with clysters (27.33);<sup>763</sup> wholesome articles of diet (27.34);<sup>764</sup> things to be avoided (27.35);<sup>765</sup> the formula of a compound preparation, consisting of a fragrant oil (gandhataila), which gives firmness to the bones and overcomes diseases caused by vāta and pitta, even when powerful and spreading (27.36–41).<sup>766</sup>

Chapter twenty-eight (bhagandarapraṭiśedha) is concerned with the knowledge about and treatment of anal fistulae (bhagandara) and related disorders.

The subjects dealt with are: the aetiology, pathogenesis and general characteristics of bhagandara;<sup>767</sup> this disorder is usually preceded by a boil (piṭikā) and is located in corrupted blood and muscular tissue; bhagandara consists of an external or internal, discharging sore (vraṇa) in the vicinity of the bladder and (other parts of) the urinary tract (28.1–4a);<sup>768</sup> when left untreated, it tears the region of the genitals (bhaga); bladder and anus,<sup>769</sup> giving rise to numerous subtle openings which emit flatus, urine, faeces, or semen (28.4–5ab);<sup>770</sup> eight types occur: arising from a single doṣa, two do-

śas, the three doṣas, and from an external cause (āgantū) (28.5cd);<sup>771</sup> the disorder is called piṭikā when unripe, but bhagandara after reaching the ripe stage (28.6ab);<sup>772</sup> the general characteristics of a piṭikā that may develop into bhagandara (28.6cd–7ab); the characteristics of a piṭikā due to vāta (28.7cd–8a),<sup>773</sup> pitta (28.8),<sup>774</sup> kapha (28.9ab),<sup>775</sup> vāta and pitta (28.9cd), kapha and vāta (28.10ab), and all the doṣas (28.10cd–11ab);<sup>776</sup> neglect leads to maturation, thus producing a sore (28.11cd);<sup>777</sup> the characteristics of this sore when it is brought about by vāta; this type is called śataponaka (28.11d–13a);<sup>778</sup> the characteristics of uṣṭragrīva, due to pitta (28.13b),<sup>779</sup> parisrāvin, due to kapha (28.13cd),<sup>780</sup> parikṣepin, due to vāta and pitta (28.14), rju, due to vāta and kapha (28.15ab); the pathogenesis and symptomatology of arśobhagandara, due to kapha and pitta (28.15cd–17ab); the characteristics of śambukāvarta, due to all the doṣas (28.17cd–18ab);<sup>781</sup> the origin, pathogenesis and symptomatology of the type called unmārgin<sup>782</sup> or kṣataja<sup>783</sup> (28.18cd–20); the signs characteristic of these types are like those of a vraṇa (28.21ab); six types are difficult to cure; those arising from all the doṣas and from a wound (kṣataja) should be given up (28.21cd);<sup>784</sup> the same applies to the bhagandara that has reached the fold (valī) called pravāhiṇī, or the sevani (raphe) (28.22ab); first of all, a physician should treat a piṭikā as well as he can, in order to prevent maturation (28.22cd–23ab); when, nevertheless, maturation has developed, the bhagandara should be examined like a haemorrhoid, in order to determine whether it is an external (arvācīna) or internal (parācīna) one;<sup>785</sup> both kinds require surgical treatment, followed by application of a caustic or cauterization;<sup>786</sup> a caustic ought to be chosen when the fistula is of the uṣṭrakandhara (= uṣṭragrīva) type (28.23cd–26ab);<sup>787</sup> the surgical treatment of śataponaka (28.26cd–27ab);<sup>788</sup> a parikṣepin fistula is to be treated in the same way, and, also, with the kṣārasūtra described in the chapter on nāḍī<sup>789</sup> (28.27cd); the treatment of an arśobhagandara (28.28–29);<sup>790</sup> surgical treatment of a fistula with many openings requires that the physician selects one of the four possible types of incision;<sup>791</sup> the description of these incisions, called gotīrtha, sarvatobhadra, dalālāṅgala or ardhālāṅgala, and lāṅgala (28.30–32a);<sup>792</sup> indications for cauterization (28.32b–d);<sup>793</sup> the koṣṭha of the patient should be purified from time to time (28.33ab); two external preparations (28.33cd–34);<sup>794</sup> more recipes (28.35–42);<sup>795</sup> the specific treatment of bhagandara has thus been described; all the measures useful in cases of vraṇa should also be taken into consideration (28.43);<sup>796</sup> things to be avoided for a year or longer after the healing of a bhagandara (28.44).<sup>797</sup>

Chapter twenty-nine (grantharbudāślīpadāpacīnāḍīvijñānīya) is about the disorders called granthi, arbuda, ślīpada, apacī, and nāḍī.

The subjects dealt with are: when the doṣas, with predominance of kapha, settle in fatty tissue, muscular tissue, or blood, they may bring about a round, elevated swelling; it is called granthi, because a lump resembling a knot (grathana) is produced (29.1);<sup>798</sup> nine types are distinguished: arising from one of the doṣas, blood, muscular tissue, fatty tissue, osseous tissue, sirās, and a vraṇa respectively (29.2ab);<sup>799</sup> the characteristics of a granthi due to vāta (29.2cd–3),<sup>800</sup> pitta (29.4a–c),<sup>801</sup> kapha (29.4d–5ab),<sup>802</sup> blood (29.5cd–6ab),<sup>803</sup> muscular tissue (29.6cd–7ab),<sup>804</sup> fatty tissue (29.7cd–9ab),<sup>805</sup> a fracture or trauma (abhighāta) of the bones (29.9cd–10a),<sup>806</sup> sirās (29.10–11),<sup>807</sup> a

vraṇa (29.12–13);<sup>808</sup> curable are granthis arising from one doṣa, blood, or fatty tissue, with the exception of those which are gross, rough, or mobile, and those located in a marman, the throat, or the belly (29.14a–c);<sup>809</sup> an arbuda is larger than a granthi, but its characteristics are the same;<sup>810</sup> six types are distinguished: arising from one doṣa, blood, muscular tissue,<sup>811</sup> and fatty tissue;<sup>812</sup> fatty tissue and kapha predominate in an arbuda, which explains that it is not movable and does not mature (29.14d–15);<sup>813</sup> the pathogenesis of a ṣoṇitārbuda (due to blood) (29.16–17);<sup>814</sup> arbudas arising from blood or muscular tissue should be given up;<sup>815</sup> the other four types are curable (29.18ab); the pathogenesis of ślīpada (29.18cd–19);<sup>816</sup> the characteristics of ślīpada due to vāta, pitta, and kapha (29.20–21ab);<sup>817</sup> when the swelling has been present for more than a year, or is very large, or discharges profusely, the case should be given up (29.21cd);<sup>818</sup> some declare that ślīpada may also affect the hands, nose, lips, and ears, in the same way as the legs;<sup>819</sup> ślīpada is particularly frequent in marshy regions (29.22);<sup>820</sup> the pathogenesis and symptomatology of gaṇḍamālā<sup>821</sup> or apacī (29.23–25);<sup>822</sup> accompanying symptoms indicating incurability (29.26ab);<sup>823</sup> the development of a ripe and swollen vraṇa into a gati or nāḍī (fistula) (29.26cd–27);<sup>824</sup> some learn that a nāḍī is solitary and does not have a straight track, whereas a gati possesses multiple tracks (29.28ab); five types of nāḍī are distinguished: brought about by a single doṣa, all the doṣas, and a foreign body (29.28cd);<sup>825</sup> the characteristics of a nāḍī due to vāta (29.29a–c),<sup>826</sup> pitta (29.29d–30ab),<sup>827</sup> kapha (29.30cd–31a),<sup>828</sup> all the doṣas (29.31b),<sup>829</sup> and a foreign body (29.31c–f).<sup>830</sup>

Chapter thirty (granthyarbudasślīpadāpacīnāḍīpratiśedha) is on the treatment of granthi, arbuda, ślīpada, apacī, and nāḍī.

The subjects dealt with are: unripe stages of granthi are to be treated like the corresponding stages of śopha (30.1ab);<sup>831</sup> the medicated ghee to be prescribed to those who want purification; the ointment to be used after purification (30.1cd–2ab);<sup>832</sup> after sudating the patient, the granthi should be repeatedly rubbed (vimardana) (30.2cd);<sup>833</sup> this procedure is particularly useful in a granthi due to vāta;<sup>834</sup> a granti due to pitta or blood requires bloodletting by means of leeches and a cooling measure;<sup>835</sup> a granthi arising from kapha ought to be treated like one due to vāta (30.3d);<sup>836</sup> next, a granthi, even when unripe, should be excised, and, as soon as the flow of blood has stopped, be cauterized, thus making it completely disappear; leaving a small part of it will make it fill up again (30.4);<sup>837</sup> the same treatment is applicable to granthis arising from muscular tissue or from a vraṇa (30.5ab);<sup>838</sup> a similar procedure should be adopted when the granthi originates from fatty tissue; the description of this procedure (30.5cd–6);<sup>839</sup> the treatment of a sirāgranthi (30.7); an arbuda should be managed in the same way as a granthi (30.8ab);<sup>840</sup> the specific treatment of an arbuda (three additional verses);<sup>841</sup> the treatment of ślīpada<sup>842</sup> due to vāta (30.8cd–10),<sup>843</sup> pitta (30.11ab),<sup>844</sup> and kapha (30.11cd–12);<sup>845</sup> the treatment of the unripe and ripe stages of apacī and gaṇḍamālā (30.13–30ab);<sup>846</sup> a procedure against obstinate granthis that derives from Nimi (30.30cd–31ab);<sup>847</sup> another procedure, taught by Suśruta (30.31c–f);<sup>848</sup> another different procedure (30.32);<sup>849</sup> the treatment of a nāḍī due to vāta (30.33),<sup>850</sup> pitta (30.34ab),<sup>851</sup> kapha (30.34cd),<sup>852</sup> and a foreign body (30.35ab);<sup>853</sup> a gati (= nāḍī), in which the use of

a sharp instrument is contra-indicated, should be opened up by the repeated application of a caustic (30.35cd–36ab);<sup>854</sup> the wicks (varti) and oils prescribed in corrupted and deep vranas with a small orifice are also useful in treating a nāḍī (30.36cd–37ab);<sup>855</sup> a paste for use in a nāḍīvrāṇa (30.37cd); the recipe of a wick that heals a nāḍī (30.38);<sup>856</sup> another recipe (30.39–40).

Chapter thirty-one (kṣudrarogavijñānīya) is concerned with the group of diseases called kṣudraroga.

The subjects dealt with are: the characteristics of ajagallikā, a children's disease, due to kapha and vāta (31.1);<sup>857</sup> the characteristics of yavaprakhyā, also due to kapha and vāta (31.2ab);<sup>858</sup> the characteristics of kacchapī (31.2cd–3ab),<sup>859</sup> panasikā (31.3cd–4a),<sup>860</sup> pāṣāṇagardabha, due to kapha and vāta (31.4b–d),<sup>861</sup> mukhadūṣikā, due to kapha and vāta (31.5),<sup>862</sup> padmakāṇṭaka, due to kapha and vāta (31.6),<sup>863</sup> vivṛtā, due to pitta (31.7),<sup>864</sup> masūrikā (31.8),<sup>865</sup> visphoṭa, more serious than masūrikā (31.9ab),<sup>866</sup> viddhā, due to vāta and pitta (31.9cd–10a),<sup>867</sup> gardabhī, also due to vāta and pitta (31.10b–d),<sup>868</sup> kakṣā, due to vāta or pitta (31.11),<sup>869</sup> gandhanāmā (31.12ab),<sup>870</sup> rājikā (31.12cd–13ab),<sup>871</sup> jālagardabha, arising from slightly excited doṣas with a predominance of pitta (31.13cd–14ab),<sup>872</sup> agnirohiṇī, arising from the three doṣas with a predominance of pitta, and lethal after five days, a week, or a fortnight (31.14cd–15),<sup>873</sup> irivellikā, due to the three doṣas (31.16ab),<sup>874</sup> vidārī (31.16cd),<sup>875</sup> śarkarārbuda, arising from fatty tissue, vāta, and kapha, with vāta as the predominant doṣa (31.17–19ab),<sup>876</sup> valmīka (31.19cd–20),<sup>877</sup> kadara (31.21),<sup>878</sup> ruddhaguda, caused by the apāna (31.22–23ab),<sup>879</sup> cipya,<sup>880</sup> akṣataroga,<sup>881</sup> also called upanakha<sup>882</sup> (31.23cd–24ab), kunakha (31.24cd),<sup>883</sup> alasa (31.25a–c),<sup>884</sup> tilakālaka (31.25d–26a),<sup>885</sup> maṣa (31.26b),<sup>886</sup> carmakīla,<sup>887</sup> more elevated than maṣa (31.26cd), jatumaṇi (31.27ab),<sup>888</sup> lāñchana (31.27cd),<sup>889</sup> vyaṅga, which is found on the face,<sup>890</sup> and called nīlikā when found elsewhere<sup>891</sup> (31.28), vyaṅga and nīlikā due to vāta, pitta, kapha, and blood (31.29–30ab),<sup>892</sup> prasupti, due to vāta and kapha (31.30cd–31),<sup>893</sup> utkoṭha and koṭha, due to pitta and kapha (31.32–33ab);<sup>894</sup> these are the thirty-six kṣudrarogas (31.33cd).<sup>895</sup>

Chapter thirty-two is concerned with the treatment of the kṣudrarogas.

The subjects dealt with are: the treatment of immature ajagallikā (32.1ab);<sup>896</sup> the treatment of yavaprakhyā (32.1cd–2a);<sup>897</sup> the series of disorders from kacchapī up to pāṣāṇagardabha, as well as ajagallikā, should, when mature, be managed in the same way as yavaprakhyā, like a vranā (32.2b–d);<sup>898</sup> the treatment of mukhadūṣikā (32.3); the measures to be adopted when this treatment fails (32.4ab);<sup>899</sup> the treatment of padmakāṇṭaka (32.4cd–5ab);<sup>900</sup> vivṛtā and the subsequently described disorders, up to jāla(gardabha), as well as irivellikā, and including agnirohiṇī, but only after warning that the last mentioned one is incurable, require the same treatment as vīsarpa due to vāta (32.5c–f);<sup>901</sup> the specific treatment of jālagardabha (32.6),<sup>902</sup> vidārīkā (32.7ab),<sup>903</sup> and śarkarārbuda<sup>904</sup> (32.7cd); incurable cases of valmīka (32.8);<sup>905</sup> the treatment of curable cases of valmīka, when immature and when mature (32.9–10);<sup>906</sup> the treatment of kadara (32.11ab);<sup>907</sup> ruddhapāyū<sup>908</sup> requires the same treatment as

niruddhamāṇi (32.11cd);<sup>909</sup> the treatment of cipya<sup>910</sup> and a corrupted kunakha<sup>911</sup> (32.12a–c), alasa (32.12d–13c),<sup>912</sup> tilakālaka and maṣa (32.13d–14ab),<sup>913</sup> carmakīla and jatumaṇi<sup>914</sup> (32.14cd), lāñchana, vyaṅga and nīlikā (32.15);<sup>915</sup> recipes against vyaṅga (32.16–17), vyaṅga and lāñchana (32.18–21); a recipe making the colour of the face equal (32.22); a recipe making the face resemble a lotus (32.23); these and similar preparations should be applied to the face, dependent on doṣa and season (32.24); a recipe against nīlikā, vyaṅga and (mukha)dūṣikā (32.25–26); a compound recipe, curing nīlikā, grey hair, vyaṅga, wrinkles, tilaka, and (mukha)dūṣikā (32.27–30); a compound formula, curing vyaṅga, nīli, etc., and making the face resemble the moon (32.31–32); an errhine (32.33ab); prasupti should be treated like kuṣṭha due to vāta, and by cauterization (32.33cd); utkoṭha requires treatments effective against kapha and pitta; koṭha should be treated like kuṣṭha (32.34).<sup>916</sup>

Chapter thirty-three (guhārogaḥ/ajñānīya) is about diseases of the genitals.

The subjects dealt with are: the aetiology of twenty-three of these diseases, i.e., upadaṃśa, etc. (33.1–5a);<sup>917</sup> upadaṃśa is of five types: arising from one doṣa, blood, and the three doṣas collectively (33.5b–d);<sup>918</sup> the characteristics of upadaṃśa due to vāta (33.5d–6ab),<sup>919</sup> pitta (33.6cd),<sup>920</sup> kapha (33.7ab),<sup>921</sup> blood (33.7cd),<sup>922</sup> and all the doṣas (33.8);<sup>923</sup> upadaṃśa caused by blood is amenable to palliative treatment; the type arising from all three doṣas has a lethal course (33.9ab);<sup>924</sup> the excited doṣas, when located in the blood and flesh of the private parts, may generate, inside or outside the urinary channel (meḍhira), growths called māṃsakīlaka, associated with itching and a slimy and bloody discharge; they resemble mushrooms when they are present on the female genitals (yonī); when these haemorrhoid-like growths (arśas) are neglected, they destroy the potency in males and the menses in females (33.9cd–11ab);<sup>925</sup> the characteristics of the boils (piṭikā) called sarṣapikā, which arise from kapha and blood (33.11cd–12ab),<sup>926</sup> those called avamantha, also arising from kapha and blood (33.12cd–13ab),<sup>927</sup> and those called kumbhīkā, arising from pitta and blood (33.13cd);<sup>928</sup> the boils called alajī are like those arising in prameha (33.14a);<sup>929</sup> the characteristics of those called uttamā, arising from pitta and blood (33.14bc),<sup>930</sup> and those called puṣkarikā (33.14d–15ab);<sup>931</sup> excessive rubbing (of the penis) with the hands results in a sarṣvyūdhapīṭikā (33.15cd);<sup>932</sup> irritation by clothing leads to mṛdita, which arises from vāta (33.16ab);<sup>933</sup> uneven, firm boils, called aṣṭhīlikā, also arise from vāta (33.16cd);<sup>934</sup> the aetiology, pathogenesis and symptomatology of the disorder, affecting the prepuce (meḍhracarman), which is called nivṛtta (33.17–18);<sup>935</sup> two other disorders of the prepuce, called avapāṭikā (33.19ab)<sup>936</sup> and niruddhamāṇi (33.19cd–20);<sup>937</sup> the disease of the penis called grathita (33.21ab);<sup>938</sup> the disease of the penis called sparśahāni, caused by blood, when this is corrupted by (the application of) sūkas (33.21cd);<sup>939</sup> the characteristics of śataponaḥ, arising from vāta and blood; in this disease the penis is covered with boils having minute openings (33.22);<sup>940</sup> tvakpāka arises from pitta and blood,<sup>941</sup> māṃsapāka from all the doṣas (33.23);<sup>942</sup> the characteristics of asṛgarbuda of the penis (33.24);<sup>943</sup> the already described māṃsārbuda<sup>944</sup> and vidradhī arise from the three doṣas<sup>945</sup> (33.25ab); the characteristics of tilakālaka, also arising from the three doṣas (33.25cd–26ab);<sup>946</sup> four diseases, namely māṃsārbuda, (tvak)pā-



ka, vidradhi and tilakālaka should not be accepted for treatment, but the other diseases should be treated quickly (33.26cd–27ab);<sup>947</sup> the twenty disorders of the female genitals (yonivyāpad) arise from corrupted foods (33.27cd);<sup>948</sup> the aetiology and symptomatology of yonivyāpad due to vāta (33.28–31ab);<sup>949</sup> the aetiology, pathogenesis and symptomatology of the types called aticaranā (33.31cd),<sup>950</sup> prākcaranā (33.32),<sup>951</sup> udā-vṛttā (33.33–34a),<sup>952</sup> jātaghnī (33.34b–d),<sup>953</sup> antarmukhī (33.35–36ab),<sup>954</sup> sūcīmukhī (33.36cd–37ab),<sup>955</sup> śuškā (33.37cd–38ab),<sup>956</sup> vāminī (33.38cd–39ab),<sup>957</sup> ṣaṇḍhā (33.39cd–40ab),<sup>958</sup> mahāyoni (33.40cd–41),<sup>959</sup> paittikī (due to pitta) (33.42–43c),<sup>960</sup> raktayoni (33.43cd),<sup>961</sup> ślaiṣmīkī (due to kapha) (33.44–45a),<sup>962</sup> lohitaḥṣayā (33.45),<sup>963</sup> pariplutā (33.46–48ab),<sup>964</sup> upaplutā (33.48cd–49a),<sup>965</sup> viplutā (33.49b–d),<sup>966</sup> kaṁṇinī (33.50–51a),<sup>967</sup> and sāmnipātikī (due to all three doṣas) (33.51);<sup>968</sup> these diseases of the female genitals lead to failure of conception, infertility, serious disorders like asṛgdara, haemorrhoids, gulma, etc., and to afflictions (ābādha) due to vāta, etc. (33.52–53).<sup>969</sup>

Chapter thirty-four (guhyarogapratīṣedha) is about the treatment of the diseases of the genitals.

The subjects dealt with are: the general treatment of upadaṁśa (34.1–6c);<sup>970</sup> its specific treatment, according to the doṣa(s) involved,<sup>971</sup> is like that of śopha (34.6d);<sup>972</sup> the development of ripening should by all means be prevented, because this would lead to destruction of the penis (34.7);<sup>973</sup> the treatment of haemorrhoid-like growths (arśas) (34.8ab), sarṣapā<sup>974</sup> and avamantha<sup>975</sup> (34.8cd–9), kumbhīkā<sup>976</sup> and alajī<sup>977</sup> (34.10–11ab), and uttamā (34.11cd–12ab);<sup>978</sup> puṣkarā<sup>979</sup> and vyūḍhā<sup>980</sup> require the same treatment as visarpa due to pitta (34.12cd); the treatment of tvakpāka,<sup>981</sup> sparśahānī<sup>982</sup> and mṛdita<sup>983</sup> (34.13), and aṣṭhīlikā (34.14ab),<sup>984</sup> the treatment of nivṛtta (34.14cd–16);<sup>985</sup> avapāṭī should be managed in the same way (34.17ab);<sup>986</sup> the treatment of niruddha(maṇi) (34.17cd–19),<sup>987</sup> granthita<sup>988</sup> (34.20ab),<sup>989</sup> and śataponaḥ (34.20cd);<sup>990</sup> śonitārbuda<sup>991</sup> should be treated like vidradhi due to blood (34.21ab);<sup>992</sup> treatments suitable in cases of vraṇa should, in accordance with the stage of the disease, also be applied (34.21cd);<sup>993</sup> cases of yonivyāpad should preferably be managed by means of measures against vāta, because this doṣa is always involved in this group of disorders; next, the other doṣa(s) are to be counteracted (34.22–23);<sup>994</sup> the treatment of various types of yonivyāpad (34.24–27);<sup>995</sup> a medicated ghee against yonivyāpad due to vāta; this ghee makes conception possible (34.28–29);<sup>996</sup> a recipe against pain in the female genitals and some other disorders (34.30–31);<sup>997</sup> two prescriptions against pain in the female genitals (34.32–34);<sup>998</sup> the treatment of yonivyāpad due to pitta (34.35);<sup>999</sup> a compound formula promoting fertility and curing many disorders (34.36–40);<sup>1000</sup> a formula with similar effects, particularly useful in disorders due to pitta (34.41);<sup>1001</sup> a formula that cures disorders by vāta and pitta, and that results in conception (34.42–44ab);<sup>1002</sup> the treatment of raktayoni (34.44cd–45ab);<sup>1003</sup> the formula of puṣyānugacūrṇa, honoured by Ātreya, to be administered in cases of yonidoṣa, rajadoṣa (menstrual disorders), and many other disorders (34.45cd–50ab);<sup>1004</sup> the general treatment of yonidoṣa (= yonivyāpad) due to kapha (34.50cd);<sup>1005</sup> a medicated oil against various types of yonivyāpad

(34.51–54ab);<sup>1006</sup> diverse prescriptions (34.54cd–55ab);<sup>1007</sup> a prescription against sliminess (paicchilya) (34.55cd–56ab);<sup>1008</sup> a prescription against bad-smelling, slimy and discharging genitals (34.56cd–57);<sup>1009</sup> a prescription that is useful when the genitals are rigid and rough (34.58)<sup>1010</sup> or bad-smelling (34.59);<sup>1011</sup> prescriptions against yonivyāpad due to kapha, pitta, vāta (34.60),<sup>1012</sup> or all three doṣas (34.61ab);<sup>1013</sup> a woman will conceive when her genitals have thus been purified, when the male seed is pure and normal, and when a jīva approaches (the uterus) (34.61cd–62ab);<sup>1014</sup> a male whose organ (indriya) is corrupted, although he has been subjected to pañcākarma, should be treated with the remedies suitable in his case (34.62cd–63ab);<sup>1015</sup> the formula of the medicated ghee called phalasarpis, curing all disorders of the female and male genitals (yoni- and śukrapradoṣa), leading to the conception of a male child (puṃsavana), and driving away demons threatening the child (34.63cd–67).<sup>1016</sup>

Chapter thirty-five (viṣapratīṣedha) is concerned with poisons (viṣa) and the treatment of poisoning.

The subjects dealt with are: the mythic origin of poison (viṣa); its two main types: sthāvara (of vegetable origin) and jaṅgama (of animal origin) (35.1–3);<sup>1017</sup> sthāvara poisons, present in tubers and bulbs, and very potent, are: kālākūṭa, indravatsa, śṛṅgī, hālāhala, etc. (35.4);<sup>1018</sup> the severely acting jaṅgama poisons are present in the fangs of snakes, spiders, etc. (35.5ab);<sup>1019</sup> sthāvara and jaṅgama poisons are collectively called akṛtrima (not artificially produced) (35.5cd); artificial (kṛtrima) poisons, called gara, are prepared from various drugs; according to the power of the mixture (yogavaśāt), they kill within a short time, after a long time, or after a very long time, and bring about various disorders (35.6–7ab);<sup>1020</sup> poisons possess the following properties: tikṣṇa, uṣṇa, rūkṣa, viśāda, vyavāyin, āśukārin, laghu, vikāṣin, sūkṣma, and avyaktarasa; they are not subject to digestion (35.7cd–8ab);<sup>1021</sup> these properties are contrary to those of ojas; for this reason, and because vāta and pitta dominate in them, poisons quickly destroy life (35.8cd–9ab); a poisonous substance, after entering the body, corrupts the blood first, and, subsequently, vāta, pitta and kapha, together with their seats; then, after reaching the heart, it destroys the body (35.9cd–10); the symptoms of the seven stages (vega) of poisoning by a sthāvara substance (35.11–16);<sup>1022</sup> the treatment required in each of these stages (35.17–20);<sup>1023</sup> recipes for preparations to be administered in the intervals between these stages (35.21–23);<sup>1024</sup> the formula of the antidote called candrodāya, to be prepared by a ritually pure virgin, clothed in white, during (the conjunction of the moon with) the constellation Puṣya, while the physician has to utter a mantra; a second mantra should be pronounced after the preparation, in order to make the drug effective in providing śānti and svastyayana (35.24–32);<sup>1025</sup> the characteristics of the weakened poison called dūṣiṣa; the symptoms it brings about; the explanation of its name (35.33–37);<sup>1026</sup> preliminary treatment; the formula of dūṣiṣāri, effective against poisoning by dūṣiṣa (35.38–40ab);<sup>1027</sup> the local and general symptoms caused by a poisoned arrow (35.40cd–45ab);<sup>1028</sup> the treatment to be applied (35.45cd–48ab);<sup>1029</sup> gara is sometimes administered by women to their husbands, or by those living at the court to a king (35.48cd–49ab);<sup>1030</sup> gara consists of a mixture of animal excreta and the ashes of various incompatible plants; it has a weak action

(35.49cd–50ab);<sup>1031</sup> the symptoms of poisoning by gara (35.50cd–55ab); its treatment (35.55cd–59); viṣaṣaṃkṛta, a dangerous condition, arising when the patient's constitution, the season in which the symptoms appear, the patient's diet, the doṣa and dūṣya mainly involved, etc., correspond to similar characteristics of the poison (35.60); factors leading to an increase of the effects of a poison (35.61–63ab);<sup>1032</sup> poisons become stronger during the rainy season, weaker when this has ended (35.63cd–64); poisoning should speedily be treated, after taking into consideration all the factors influencing the course of the illness (35.65); the treatment of poisoning with a substance of the nature of kapha (35.66),<sup>1033</sup> pitta (35.67),<sup>1034</sup> and vāta (35.68);<sup>1035</sup> any drug used in the treatment of poisoning should contain ghee (37.69ab); ghee is the best remedy in all cases of poisoning and in all the stages, but particularly when vāta is very strong (35.69cd–70ab); poison located in a seat of kapha can easily be cured; located in a seat of pitta, it is curable with difficulty; located in a seat of vāta, it is extremely difficult to cure or incurable (35.70cd–71).

Chapter thirty-six (sarpaṇiṣaṇṇapratīṣedha) is about venomous snakes and the treatment of snake-bites.

The subjects dealt with are: the earthly (bhauma) snakes, which are of many kinds; they belong to three main groups, called darvikara, maṇḍalin and rājimant (36.1–2ab);<sup>1036</sup> their venom possesses the properties rūkṣa, kaṭuka, amla, uṣṇa, svādu, and śīta; these properties, in the mentioned order, and in pairs of two, lead to excitement of vāta, pitta and kapha (36.2cd–3ab);<sup>1037</sup> the three stages of the life cycle<sup>1038</sup> and the three main seasons in which the venom of the three groups of snakes is present in abundance; the venom of snakes of mixed breed (vyantara) is abundantly present in the transitional periods (sandhi) of these seasons (36.3cd–4ab); the characteristics of darvikara, maṇḍalin and rājimant snakes (36.4cd–6);<sup>1039</sup> the gaudhera, which descends from a godhā and is a quadruped, has the same kind of venom as a darvikara (36.7a–c);<sup>1040</sup> the snakes of mixed breed have mixed characteristics; therefore they excite the three doṣas (36.7cd–8ab);<sup>1041</sup> circumstances inciting snakes to bite; the quantity of venom increases in the order in which these circumstances are mentioned (36.8cd–9);<sup>1042</sup> treatment should be carried out in agreement with these teachings (36.10ab); snakes of mixed breed, having a bad nature, reside near roads (36.10cd); the characteristics of a series of types of bite: tuṇḍāhata, vyālīḍha, vyālūpta, daṣṭaka, and daṣṭanipīḍita; the first two types do not contain poison; the last type is incurable (36.11–14ab);<sup>1043</sup> snake venom does not corrupt the body as long as it has not reached the blood,<sup>1044</sup> but, even when a very small quantity has reached it, the poison spreads like a sheet of oil on water (36.14cd–15ab); touching a snake may already excite vāta in someone who is afraid of snakes; this condition is called sarpaṅgābhīhata (36.15cd–16ab);<sup>1045</sup> the symptoms presented by someone hurt by some animal on rough ground or in the dark and therefore afraid that the animal was a snake; this condition is called śaṅkāviṣa (36.16cd–17);<sup>1046</sup> the general characteristics of venomous and non-venomous bites (36.18);<sup>1047</sup> the symptoms of the seven stages of poisoning by the bite of a darvikara (36.19–22),<sup>1048</sup> those of the first five stages of that of a maṇḍalin (36.23–24)<sup>1049</sup> and a rājila (= rājimant) (36.25–27a);<sup>1050</sup> the symptoms of

the sixth and seventh stages are like those of the bite of a darvīkara (36.27b);<sup>1051</sup> the first five stages only can be treated (36.27cd); circumstances weakening the venom of a snake (36.28–30ab);<sup>1052</sup> circumstances making a bite incurable (36.30cd–32ab);<sup>1053</sup> symptoms presented by incurable patients (36.32cd–37ab);<sup>1054</sup> when such symptoms are absent, the patient should be treated as soon as possible (36.37cd–38ab); measures to be taken immediately by physician and patient, before a hundred mātṛā have passed after the bite (36.38cd–41);<sup>1055</sup> ligation of a limb with an ariṣṭā, proximal to the bite (36.42–43), followed by excision (36.44);<sup>1056</sup> cauterization may be carried out, except in bites by a maṇḍalin, because such a snake is of a pittala nature (36.45);<sup>1057</sup> the treatment of a maṇḍalin bite (36.46–48ab);<sup>1058</sup> when the poison has already penetrated and spread through the body, bloodletting is the best remedial measure, followed by cooling applications which stop the bleeding (36.48cd–53ab);<sup>1059</sup> measures protecting the heart (hṛdayāvaraṇa) (36.53cd–54);<sup>1060</sup> emetics should be administered when, in spite of treatment, more serious symptoms appear,<sup>1061</sup> or, as an alternative, more specific therapy should be initiated (36.55–57ab); drug treatment of a bite by a darvīkara (36.57cd–58ab),<sup>1062</sup> a black snake (kṛṣṇasarpa) (36.58cd–59),<sup>1063</sup> a rājīmant (36.60–61ab),<sup>1064</sup> and a maṇḍalin (36.61cd–62);<sup>1065</sup> the formula of a cooling paste, called himavāt, to be applied to a maṇḍalin bite (36.63–64); a medicated drink to be administered to persons bitten by a maṇḍalin (36.65); the formula of the drug called aṣṭāṅga, useful in bites by a gonasa snake<sup>1066</sup> (36.66–67ab); prescriptions useful in a rājīmant bite (36.67cd–68ab), the bite of a kārṇḍacitrā<sup>1067</sup> (36.68cd–70ab), the bites of snakes of mixed breed (36.70cd–71), the bites of any snake, even a bite of Takṣaka (36.72–73);<sup>1068</sup> the treatment of each of the seven stages of poisoning due to the bite of a darvīkara (36.74–78);<sup>1069</sup> the treatment of the third and sixth stages of poisoning due to the bite of a maṇḍalin (36.79),<sup>1070</sup> and that of the first and sixth stages after the bite of a rājīla (36.80–81ab);<sup>1071</sup> the treatment of the stages left undescribed is like that after a darvīkara bite (36.81cd); a mild form of treatment, excluding bloodletting, is advisable in pregnant women, children, and aged persons (36.82ab);<sup>1072</sup> a prescription effective against all poisons (36.82cd–83);<sup>1073</sup> a prescription against various types of poisoning and a series of diseases (3.84–85); a poison should completely be removed from the body in order to prevent a new wave of action or the development of dūṣṭiṣa (36.86); the treatment of excited vāta, pitta and kapha after elimination of a poison (36.87–88);<sup>1074</sup> the treatment of sarpāṅgābhīhata and śaṅkāviṣa (36.89–90ab);<sup>1075</sup> protecting measures against snakes and their bites (36.90cd–92);<sup>1076</sup> measures frightening snakes away, particularly at night (36.93).<sup>1077</sup>

Chapter thirty-seven (kīṭālūtādiviṣapraṭiśedha) is about the bites of poisonous insects (kīṭa), spiders (lūtā), etc., and their treatment.

The subjects dealt with are: kīṭas originate from the excrements, urine, seed, eggs, and decomposing dead bodies of snakes; they are of four types, when classified according to their relationship to the doṣas (37.1);<sup>1078</sup> the symptoms caused by the bites of kīṭas mainly associated with vāta, pitta or kapha singly, and with all three doṣas jointly (37.2–4ab);<sup>1079</sup> the stages of poisoning are like those caused by a snake-bite; the general symptoms caused by the bite of a kīṭa (37.4cd–5);<sup>1080</sup> the local symptoms of a

bite by a scorpion (vṛścika) (37.6–7ab);<sup>1081</sup> the poison of scorpions arising from the putrefying dung of cattle, etc., objects besmeared with a poisonous substance, and decomposing dead bodies of snakes, is mild, moderate, and strong respectively (37.7cd–8ab);<sup>1082</sup> the distinctive morphological characteristics of these three groups of scorpions (37.8cd–10);<sup>1083</sup> the general effects of the bite of a scorpion with a strong poison (37.11–12);<sup>1084</sup> the symptoms produced by the bite of an uccīṅga, a small animal, also called uṣṭradhūma and rātricāra (37.13–14);<sup>1085</sup> vāta and pitta predominate in kīṭas; kapha predominates in kaṇabhas and unduras, vāta in scorpions and uṣṭradhūmakas (37.15);<sup>1086</sup> determination of the main doṣa(s) involved is decisive for the treatment to be followed (37.16);<sup>1087</sup> the symptoms of poisoning with a predominance of vāta, pitta and kapha (37.17–19);<sup>1088</sup> the treatment of these three conditions (37.20–21);<sup>1089</sup> rules for the general treatment of kīṭa-bites (37.22–23ab);<sup>1090</sup> the recipe for a fumigation, taught by Kāśyapa, useful in all poisonous bites (37.23cd–24ab); any anti poison measure should be tried, including those against snake-bites (37.24cd–25ab);<sup>1091</sup> prescriptions against kīṭa-bites (37.25cd–27ab);<sup>1092</sup> the formula of daśāṅgāgāda against kīṭa-bites, devised by Kāśyapa (37.27cd–28); prescriptions against a scorpion-bite (37.29–42);<sup>1093</sup> a formula against the bites of kīṭas, snakes, spiders, unduras, and scorpions (37.43); a prescription, taught by Jina, against the bites of rātrikas<sup>1094</sup> and scorpions (37.44); more dangerous than kīṭas are spiders; these are of sixteen kinds,<sup>1095</sup> although others distinguish twenty-eight, others again even more kinds; some regard them as attendants of Sahasraraśmi (= Sūrya) and declare that they are of thousand different kinds (37.45–46ab);<sup>1096</sup> spiders, however, are all the same in being able to cause numerous complications (37.46cd); spiders are classified according to their relationship with the doṣas, because it is troublesome to distinguish and name them (37.47); the bites in which one doṣa predominates are difficult to cure; the bites associated with all the doṣas are incurable (37.48ab);<sup>1097</sup> the local and general symptoms of a spider bite with a predominance of pitta, kapha and vāta (37.48cd–50); the signs belonging to each of the doṣas are also to be taken into consideration (37.51ab); the local and general symptoms of an incurable bite (37.51cd–53);<sup>1098</sup> usually, all three doṣas are (more or less) involved in a spider bite (37.54ab); three degrees of toxicity are distinguished; when the bite is neglected, death occurs within a week, ten days, or a fortnight respectively (37.54cd–55ab);<sup>1099</sup> the local and general symptoms caused by the bite of a poisonous spider (37.55cd–58ab);<sup>1100</sup> a spider emits its poison in eight ways: by means of its breath (śvāsa), fangs (daṁṣṭrā), excrements, urine, seed, saliva, claws, and oestrous discharge (ārtava); chiefly, it does so by means of its mouth parts (37.58cd–59ab);<sup>1101</sup> spiders bite in the region above the navel, kīṭas do so above and below that region (37.59cd); pieces of clothing which have been corrupted by their poison cause disorders through their contact with the body (37.60ab); the bite of a poisonous spider produces slight symptoms during the second half of the first day; the symptoms that appear during the second to seventh days; this mode of action is typical of a poison with the highest degree of toxicity; the mode of action of less toxic poisons can be deduced (37.60cd–65);<sup>1102</sup> the effects of the poison subside after three weeks (37.66ab); the treatment should begin with excision, followed by cauterization,<sup>1103</sup> unless the spider belongs to those with a predominance of pitta (37.66cd–67ab);<sup>1104</sup> contra-indications

for excision and cauterization (37.67cd–68ab);<sup>1105</sup> the course of treatment after cauterization (37.68cd–70ab);<sup>1106</sup> the formula of padmakāgada, useful in all spider- and kiṭa-bites (37.70cd–71ab), and the even more efficacious campakāgada (37.71cd–72ab); another, related prescription (37.72cd); the formulae of the antidotes (agada) called mandara and gandhamādana (37.73–74); purgatives to be prescribed to patients with an abundance of doṣas (37.75–77ab); when the burning sensation and swelling have disappeared, measures should be taken which make the karnikā<sup>1107</sup> fall off (37.77cd);<sup>1108</sup> prescriptions that promote this falling off (37.78–80ab);<sup>1109</sup> the treatment to be adopted when the karnikā is falling off (37.80cd); all fatty drugs should be prepared with ghee, for oils would increase the effects of a poison (37.81); drugs active against all spider-bites (37.82–86).<sup>1110</sup>

Chapter thirty-eight (mūṣikāḥṛdayasaṃhitā) is concerned with the bites of rats and mice (mūṣika) and mad dogs (alarka) and the treatment of disorders caused by their poisons.

The subjects dealt with are: the eighteen kinds of mūṣika: lālana, capala, putra, hasira, cikkira, ajira, kaṣāyadanta, kulaka, kokila, kapila, asita, aruṇa, śābala, śveta, kapota, palitondura, chucchundara, and rasāla (38.1–2);<sup>1111</sup> the local and general symptoms caused by contact with the semen (śukra) of a mūṣika (38.3–5);<sup>1112</sup> the patient is difficult to cure when the poison of an ākhu (= mūṣika) has pervaded the body (38.6ab); signs indicating incurability (38.6cd–7ab); signs indicating that the patient should be given up (38.7cd–8ab); the pathogenesis and symptomatology of rabies in dogs (38.8cd–10ab);<sup>1113</sup> the local and general symptoms caused by the bite of a rabid dog (38.10cd–11ab);<sup>1114</sup> the same symptoms may be brought about by the bites of a jackal (śṛgāla), mule (aśvatarā), horse (aśva), bear (r̥kṣa), dvīpin (leopard), tiger (vyāghra), wolf (vṛka), and other animals (38.11cd–12ab);<sup>1115</sup> the symptoms appearing when the wound contains poison; their absence points to a non-poisonous bite (38.12cd–14ab);<sup>1116</sup> someone who, after having been bitten, imitates the movements and sounds of the animal, will die, as well as someone seeing the animal unexpectedly in a mirror or reflected on the surface of water (38.14cd–15ab);<sup>1117</sup> someone who, also when not having been bitten, is afraid of water, its sound, touch and sight, should, as suffering from jalasaṃtrāsa (hydrophobia), be given up (38.15cd–16ab);<sup>1118</sup> the place of the bite of a mūṣika should, as soon as possible, be cauterized (38.16cd–17ab); cauterization should be followed by bloodletting; afterwards, a paste should be applied (38.17cd–18ab);<sup>1119</sup> the recipe of another paste (38.18cd–19ab); subsequent treatment (38.19cd–20); emetics (38.21–23ab);<sup>1120</sup> purgatives (38.23cd);<sup>1121</sup> other types of preparations (38.24–32);<sup>1122</sup> a remnant of mūṣika poison, not eliminated, will become active when rain clouds appear, or in the seasons suited to the excitation of a particular doṣa (38.33);<sup>1123</sup> any suitable treatment should then be applied, as well as those measures which counteract dūṣiṣa (38.34);<sup>1124</sup> the treatment of the bite of a rabid dog (38.35–38ab);<sup>1125</sup> a person bitten by a mad dog should also take a medicated bath, accompanied by a mantra (38.38cd);<sup>1126</sup> the symptoms caused by wounds by the nails or teeth of bipeds or quadrupeds (38.39); the treatment of these wounds (38.40).<sup>1127</sup>

Chapter thirty-nine (rasāyanavidhi) is concerned with elixirs conferring longevity.

The subjects dealt with are: the general effects of a rasāyana (39.1–2ab);<sup>1128</sup> the etymology of rasāyana (39.2cd);<sup>1129</sup> a rasāyana or vājīkaraṇa should permanently be used in the first two stages of the life cycle by a self-subdued human being who has undergone sudation, bloodletting and purification (39.3–4);<sup>1130</sup> rasāyana treatment is of two types: kuṭiprāveśika (within an enclosed space), which is the best method, and vātātapika (in the open air) (39.5);<sup>1131</sup> the construction of a suitable room (kuṭi) (39.6–7);<sup>1132</sup> the requisites for persons wanting to submit to the treatment (39.8–10);<sup>1133</sup> preparatory procedures, aiming at complete bodily purification (39.11–14);<sup>1134</sup> a rasāyana preparation to be taken once daily, in the evening; the Vaikhānasas, Vālakhilyas, and other ascetics experienced the beneficial effects of this rasāyana, devised by Brahmā (39.15–23);<sup>1135</sup> another rasāyana, to be taken daily, in the morning (39.24–26);<sup>1136</sup> this treatment confers a life span of hundred years without disease and old age (39.27);<sup>1137</sup> a preparation to be taken during a month, conferring a life span of a thousand years (39.28–32);<sup>1138</sup> the preparation of cyavanaprāśa, which rejuvenated Cyavana; it cures many diseases, leads to a long life span, and strengthens virility (39.33–41);<sup>1139</sup> other rasāyanas (39.42–47); the formulae of the medicated ghee called pañcāravinda, which restores one's strength and virility (39.48), and another ghee, called catuḥkuvalaya, which improves one's mental faculties (39.49); the formula of a compound rasāyana (39.50–53);<sup>1140</sup> rasāyanas prepared with the plants called nāgabālā (39.54–55),<sup>1141</sup> gokṣuraka (39.56–57), and vārāhikanda (39.58–59);<sup>1142</sup> a series of medicinal plants with the same properties: vidārī, atibālā, balā, madhuka, vāyasī, two kinds of śreyasī, yuktā, pathyā, dhātṛī, sthīrā, amṛtā, maṇḍūkī, śaṅkhakusumā, vājigandhā, and śatāvarī (39.60–61);<sup>1143</sup> another useful plant is citraka; the varieties with yellow, white and dark flowers possess a stronger action in the mentioned order (39.62); citraka preparations curing particular disorders (39.63–65); a preparation with bhallātaka fruits, to be taken first in increasing, later in decreasing fixed numbers, during fixed periods of time; this course of treatment improves digestion and cures a series of diseases (39.66–71);<sup>1144</sup> another bhallātaka preparation with the same effects (39.72–74);<sup>1145</sup> more recipes with bhallātaka fruits (39.75–81);<sup>1146</sup> bhallātaka fruits cure any type of kapha disease and are also effective in constipation (vibandha) (39.82);<sup>1147</sup> things to be avoided during all rasāyana treatments (39.83); preparations with tuvaraka oil which cure kuṣṭha (39.84–93);<sup>1148</sup> similar preparations having rasāyana effects (39.94–95);<sup>1149</sup> the use of pippalī as a rasāyana (39.96–98ab);<sup>1150</sup> the pippalīvardhamāna procedure (39.98cd–102);<sup>1151</sup> rasāyana effects can also be obtained by drinking some water, each morning, during a year, out of an iron vessel, daubed with pippalī (39.103); a series of parts of other plants that can be employed in the same way (39.104–105);<sup>1152</sup> the described rasāyanas may also be used in combination with milk; drunk in that way, their effect is doubled (39.106); preparations with somarājī, which act as rasāyanas and cure kuṣṭha, as well as digestive disorders (39.107–110);<sup>1153</sup> the mythic origin of garlic (rasona, laṣuna); brāhmaṇas do not use it, because it has arisen from the body of the Daitya called Rāhu; yet, having originated from the amṛta, it is the most excellent rasāyana (39.111–112);<sup>1154</sup> the way in which the expressed juice of garlic may be used

(39.113–121); the suitable dosages (39.122); the articles of diet to be taken after digestion of the garlic (39.123–124); articles of diet prepared with garlic (39.125–126); garlic is the best medicine in disorders caused by vāta, either singly, or when covered (āvrta), except when covered by pitta and rakta (39.127); contra-indications (39.128); after the use of garlic a mild purgative is recommended, in order to prevent the excitation of pitta (39.129); the origin of śilājatu, a substance of six varieties, which have the taste of one of the six metals (dhātu) (39.130);<sup>1155</sup> the properties of śilājatu;<sup>1156</sup> the lauha variety deserves particular esteem (39.131);<sup>1157</sup> the characteristics of the best variety (39.132);<sup>1158</sup> the preparation of śilājatu for medicinal use by soaking it in water, drying it, and then steeping it in a warm inspissated decoction; when this mixture has become homogeneous and dry, it should be thrown into an amount of the decoction again; this process has to be repeated seven times (39.133–135);<sup>1159</sup> the way to use this śilājatu preparation (39.136–138);<sup>1160</sup> the dosages (39.139);<sup>1161</sup> when properly used, śilājatu works as a rasāyana (39.140–141ab);<sup>1162</sup> articles of diet to be avoided during its employment (39.141cd);<sup>1163</sup> śilājatu cures any curable disease; when properly employed in health, it provides a large amount of ūrjā (39.142);<sup>1164</sup> the kuṭipraveśa type of rasāyana suits those with leisure who have servants; others should be satisfied with sauryamārutika methods (39.143);<sup>1165</sup> measures of the latter type, easy to be carried out and without the risk of complications when incorrectly applied, will be described next (39.144); a long series of this type of prescriptions (39.145–164);<sup>1166</sup> the rules for a rasāyana procedure including the use of 360 pills during a full year (39.165–168); the preparation, use and effects of the medicated ghee called nārasirṇaghṛta (39.169–173); the effects of this ghee, when additional rules are observed (39.174–176); those rasāyanas have been described which can actually be prepared, which are effective and suited to the yuga we live in; many other rasāyanas, difficult to prepare, are omitted (39.177); when, during rasāyana treatment, a disease appears, one should employ those measures which are suitable to the case and stop the ongoing therapy (39.178);<sup>1167</sup> the characteristics of those who continually use a rasāyana (39.179–180);<sup>1168</sup> the behaviour that is equivalent to a perfect rasāyana (39.181).

Chapter forty (vājīkaraṇavidhi) is concerned with aphrodisiacs.

The subjects dealt with are: the aims of those using an aphrodisiac (40.1–2ab);<sup>1169</sup> the effects of an aphrodisiac (40.2cd–3);<sup>1170</sup> those leading a virtuous life in agreement with the dharma are not in need of aphrodisiacs, but those with less sattva may make use of them (40.4–6); preparatory treatment (40.7–8);<sup>1171</sup> the joys of parenthood (40.9–11);<sup>1172</sup> the preparation of a compound aphrodisiac (40.12cd–21ab);<sup>1173</sup> several aphrodisiac prescriptions (40.21cd–34);<sup>1174</sup> the properties of substances and other things that stimulate the libido and increase the potency (40.35–36);<sup>1175</sup> a long description of the type of woman best suited to rouse a man and make him potent (40.37–40);<sup>1176</sup> one should make love according to the rules laid down in the *Kāmasūtra*, taking into consideration the appropriateness of place and time, one's strength and potency, and without acting contrary to medical prescriptions (40.41); a list of things that mentally promote potency (40.42–45); things helpful to achieve one's aim (40.46–47);<sup>1177</sup> the best



medicine in a long list of diseases (40.48–56);<sup>1178</sup> a clyster is the best remedial measure in diseases due to vāta, a purgative in those due to pitta, an emetic in those due to kapha (40.57ab); honey subdues kapha, ghee pitta, and oil vāta (40.57cd);<sup>1179</sup> for these reasons one should the medicines, mentioned as the best ones, prepare as suited to the patient and the situation he is in (40.58).

After listening to Ātreya's teachings, Agniveśa, esteemed by Bheṇḍa and the other sages, remained unsatisfied; he asked why some patients, provided with all things necessary to recovery, die, whereas others, devoid of these things, attain full health (40.59–62ab). In reply to this question, (Ātreya) Punarvasu gives a discourse on the factors influencing the course of a disease and the outcome of the therapeutic process; he concludes that the restricted power of medicine should be accepted, but that this science, nevertheless, holds out hope for suffering mankind, when practised by honest, learned and experienced physicians (40.62cd–77).<sup>1180</sup>

The study of the *Aṣṭāṅgaḥṛdaya* is recommended. The work is described as being based on the *Aṣṭāṅgasamgraha* (40.78–80). The results to be obtained by studying it are mentioned (40.81–82). The excellence of the *Aṣṭāṅgaḥṛdaya* derives from the incorporation of the contributions of both Caraka and Suśruta (40.83–84). Someone unwilling to accept the counsel to study the *Aṣṭāṅgaḥṛdaya*, should laboriously go through the primordial treatise (expounded by Brahmā) and devote his whole life to it (40.85). One should not give credit to the words of other teachers, but hold to what has been said (in this treatise) by someone who regards himself as impartial (40.86–87). The foremost criterion for the acceptability of teachings is not that they have been exposed by sages, but the well-chosen way of expressing them (*subhāṣita*) (40.88).

The treatise ends with the wish that the *Ḥṛdaya*, comprising the essence (*ḥṛdaya*) of the whole of the ocean of āyurvedic literature, be conducive to the welfare of the world (40.89).



Part 4

Aṣṭāṅgasamgraha



## Chapter 1

### Sūtrasthāna<sup>1</sup>

The maṅgala of the *Aṣṭāṅgasamgraha* is addressed to the Ekavaidya, to those conversant with the medical tradition, to Pitāmaha,<sup>2</sup> and other (deities)<sup>3</sup> (1.1).<sup>4</sup>

The descent of āyurveda from the world of the gods to earth is more elaborately described than in the *Hṛdaya*. The line of transmission in the divine realm is identical, but the *Samgraha* relates that Indra gives the āyurveda, characterized as an upaveda of the *Atharvaveda*, to a group of sages consisting of Punarvasu, Dhanvantari, Bharadvāja, Nimi, Kāśyapa, Kaśyapa, and (Ā)lambāyana. On the basis of Indra's teachings, each of these seven sages wrote a treatise on the eightfold āyurveda, dealing with kāya, bāla, graha, ūrdhvāṅga, śalya, daṃṣṭrā, jārā, and vṛṣa<sup>5</sup> (1.4–10). Thereupon, they passed their knowledge on to a group of pupils: Agniveśa, Hārīta, Bheda, Māṇḍavya, Suśruta, Karāla, and others, who, in their turn, composed a medical treatise (1.11–13ab).<sup>6</sup>

The *Aṣṭāṅgasamgraha* is described as a comprehensive textbook, extracted from earlier specialized works; it was written with a view to meet the needs of the present age of the world (1.13cd–18).<sup>7</sup> Kāyacikitsā will be its favourite subject (1.19).<sup>8</sup> Every syllable of the work will be in conformity with tradition (1.20).<sup>9</sup>

The verse on the three doṣas of the *Hṛdaya* (Sū.1.6cd–7ab) is expanded by adding that the doṣas may be subject to increase (vṛddhi) or decrease (kṣaya), or maintain a balanced state (sāmya); increase and decrease may be present to a high (utkrṣṭa), moderate (madhya) or slight (alpa) degree (1.21–22).

A.s.Sū.1.23–28ab = A.h.Sū.1.7cd–12.

Six types of saṃsarga and ten types of saṃnipāta<sup>10</sup> are briefly referred to (1.28cd).<sup>11</sup>

A.s.Sū.1.29 = A.h.Sū.1.13.

Disorders described as arising from rasa, etc., are actually brought about by doṣas staying in rasa, etc.; their characterization as rasaja, etc., is to be interpreted as a figurative expression (upacāra)<sup>12</sup> (1.30).<sup>13</sup>

The chief function of each of the seven dhātus is mentioned (1.31). The dhātus maintain the body and each dhātu nourishes the subsequent one of the series (1.32ab).<sup>14</sup>

A.s.Sū.1.32cd–37ab = A.h.Sū.1.14–18.

Guṇas added to the series of twenty of the *Hṛdaya* are the objects of the senses, and the guṇas called vyavāyin and vikāṣin (1.37cd); vyavāyin and vikāṣin are defined (1.38).<sup>15</sup> Some authorities are reported to regard vyavāyin as a high degree of the guṇa called sara, and vikāṣin as a high degree of tīkṣṇa (1.39ab).<sup>16</sup> Sattva, rajas and tamas are the three mahāguṇas (1.39cd).

A.s.Sū.1.40–47 = A.h.Sū.1.19–26.

The verses of the *Hṛdaya* on the four limbs of treatment (pādacatuṣṭaya) (Sū.1.27–29) and the classification of diseases according to their degree of curability (Sū.1.30–35ab) do not form part of A.s.Sū.1.<sup>17</sup>

The chapter ends with a table of contents of the *Aṣṭāṅgasamgraha* (1.48–64).<sup>18</sup>

Chapter two (śiṣyopanayanīya)<sup>19</sup> has no parallel in the *Āṣṭāṅgahṛdaya*.

The subjects dealt with are: the qualities required in a student (2.2–4ab); circumstances unsuitable to study and some rules for proper study (2.4cd–5); rules for the student's behaviour (2.6–7ab); requirements for an accomplished physician (2.7cd–18ab);<sup>20</sup> types of patients to be rejected on account of moral defects, etc. (2.18cd–20).<sup>21</sup>

A.s.Sū.2.21–23 = A.h.Sū.1.27–29.

More important than the four limbs of treatment (pādacatuṣṭaya) are the moral qualities of a physician (2.24–25ab).

A.s.Sū.2.25cd–28ab = A.h.Sū.1, additional verse and 31–32.

The characterization of easily curable diseases is slightly expanded (2.28cd). The characterization of diseases which are difficult to cure (2.29), amenable to palliative treatment only (2.30–31), or incurable (2.32–33ab), differs from that found in the *Hṛdaya*.

Treatment should be initiated only after assessment of the degree of curability of a disease (2.33cd–34ab).

Physicians are warned that curable diseases may become incurable under particular circumstances (2.34cd–36ab).

The importance of the physician's ethical standards is stressed again (2.36cd–38).

Chapter three (dinacaryā) is much longer (127 verses) than the corresponding chapter of the *Hṛdaya* (Sū.2; 48 verses).

The rules for the proper way of getting up in the morning, attending to one's natural urges, sipping water from the palm of one's hand (ācāma) (3.2–12ab),<sup>22</sup> and brushing one's teeth (3.12cd–21)<sup>23</sup> are elaborate. Scraping of the tongue (jihvānirlekhana) is added to the daily toilet (3.16cd–17).<sup>24</sup>

A.s.Sū.3.18 = A.h.Sū.2.4.

Trees and shrubs unsuitable for tooth-brushing are mentioned (3.19–21ab). Tooth-brushes and sandals should not be made with the wood of the palāśa and asana (3.21cd). The lower teeth should be brushed first. After cleansing the teeth, the eyes should be washed while holding water in one's mouth; this water should be cold in summer and autumn (3.22).<sup>25</sup> The gods and one's elders (vr̥ddha) should be paid homage to; one should be attentive to the maṅgalāṣṭaśata<sup>26</sup> and look at a golden vessel filled with ghee (3.23).

A.s.Sū.3.24ab = A.h.Sū.2.5ab.

The effects of applying a collyrium are described (3.24cd–25ab).

A.s.Sū.3.25cd–26ab = A.h.Sū.2.5cd–6ab.

Aṇutaila<sup>27</sup> should be used as an errhine, followed by holding a gaṇḍūṣa in the mouth;<sup>28</sup> the beneficial effects of these practices are described (3.26cd–30). Next,

smoking,<sup>29</sup> the application of fragrant substances, putting on a garland, etc., are mentioned as beneficial (3.31–33ab).

Rules are given for the use of clothing, garlands and footwear (3.33cd–34).

The beneficial effects of keeping fragrant substances in the mouth and of betel chewing are described (3.35–38ab).<sup>30</sup>

After the performance of these activities, one should begin the daily work suited to one's occupation (3.38cd–40). Rules for conduct are given (3.41–42),<sup>31</sup> followed by a long series of prescriptions and prohibitions (3.43–54ab).<sup>32</sup>

The beneficial effects of abhyaṅga are described (3.54cd–57),<sup>33</sup> followed by<sup>34</sup> those of abhyaṅga of the head (3.58cd),<sup>35</sup> filling the ears with oil (3.59ab),<sup>36</sup> and abhyaṅga of the feet (3.59cd–60ab).<sup>37</sup>

A.s.Sū.3.60cd = A.h.Sū.2.9cd.

Physical exercise (vyāyāma) is defined (3.61ab).

A.s.Sū.3.61cd–69ab = A.h.Sū.2.10–17.

Additional rules related to bathing are formulated (3.69cd–73).

A.s.Sū.3.74 = A.h.Sū.2.18.

Rules are given concerning the proper food to be taken and its consumption (3.75–79).<sup>38</sup>

The proper way of passing the afternoon leisure time is described (3.80), followed by a long series of prescriptions and prohibitions regarding daily behaviour (3.81–125),<sup>39</sup> for a small part also found in the *Hṛdaya*.<sup>40</sup> The results of observing the rules are found in the concluding verses (3.126–127).

Chapter four (ṛtucaryā) differs considerably from the corresponding chapter of the *Hṛdaya* (Sū.3).

The chapter opens with an exposition (in prose) on time (kāla) (4.2). The units of time are dealt with (in prose), the six seasons, the months, and the two halves of the year (4.3–4).

The units of time, absent from the *Hṛdaya*, resemble those of *Suśruta*.<sup>41</sup> *Mātrā* is a synonym of *akṣinimeṣa*;<sup>42</sup> the *nāḍikā* is added and said to be 20 1/10 *kalā*;<sup>43</sup> two *nāḍikās* form a *muhūrta*;<sup>44</sup> the *yāma* is added too and said to consist of 3 3/4 *muhūrta*;<sup>45</sup> a day and a night consist of four *muhūrta* each.<sup>46</sup>

The first month of the year is *Mārgaśīrṣa*, while it is *Māgha* in the *Hṛdaya*. The cycle of the seasons begins with *hemanta*, whereas *śiśira* is the first season in the *Hṛdaya*.

The first half of the year is called *udagayana* or *ādāna*, the second half *dakṣiṇāyana* or *visarga*.

The āgneya character of *ādāna* and the saumya character of *visarga* are described (in prose, concluded by a verse) (4.5–7).<sup>47</sup>

The seasons are described,<sup>48</sup> their effects on the human organism, and the regimen to be observed (in verse): *hemanta* (4.8–19ab), *śiśira* (4.19cd–20ab), *vasanta* (4.20cd–27ab), *grīṣma* (4.27cd–38ab), *varṣāḥ* (4.38cd–49), and *śarad* (4.50–60ab).<sup>49</sup>

A.s.Sū.4.60cd–62ab = A.h.Sū.3.57cd–59.

Two concluding verses are added (4.62cd–64).

Chapter five (rogānutpādaniya) largely agrees with the corresponding chapter of the *Hṛdaya* (Sū.4).

A.s.Sū.5.1–22 = A.h.Sū.4.1–21ab.

A.s.Sū.5.23 replaces A.h.Sū.4.21cd, without changing the contents.

A.s.Sū.5.24–25 = A.h.Sū.4.22–23.

Verses added (5.26–31) describe the numerous bad effects arising in those who neglect to remove impurities from their bodies.

A.s.Sū.5.32–43 = A.h.Sū.4.26–36.

Two concluding verses (4.44–45) are added.

Chapter six (dravadvayavijñāniya) is much longer than the corresponding chapter of the *Hṛdaya* (Sū.5).<sup>50</sup>

Many kinds of water are described (6.2–50).<sup>51</sup>

A.s.Sū.6.2 = A.h.Sū.5.1.

A.s.Sū.6.3 is added to the description of rainwater (gaṅgāmbu).

A.s.Sū.6.4–6ab = A.h.Sū.5.2–4ab.

A.s.Sū.6.6cd–7ab replaces A.h.Sū.5.4cd and is more elaborate on the same subject.<sup>52</sup>

A.s.Sū.6.7cd = A.h.Sū.5.5ab.

Three additional verses (6.8–10) are about the relationships between the colour of the soil and the taste of the water fallen on it, and about the relationships between soils with predominance of one of the mahābhūtas and the taste of the water.<sup>53</sup>

A.s.Sū.6.11ab = A.h.Sū.5.5cd.

A.s.Sū.6.11cd–15ab are added to the text of the *Hṛdaya*; they deal with the properties of the water from wells, tanks, etc. (6.11cd–15ab).<sup>54</sup>

A.s.Sū.6.15cd–19 = A.h.Sū.5.8cd–12.

A.s.Sū.6.20–22ab corresponds to A.h.Sū.5.6–7ab.

A.s.Sū.6.22cd–23ab = A.h.Sū.5.7cd–8ab.

The bad effects of polluted water are described (6.23cd–24),<sup>55</sup> followed by measures to purify it (prasādana) (6.25–27ab).<sup>56</sup>

Rules are given about the proper use of water, cold, tepid or warm, dependent on the condition of a patient; prohibitions are also formulated (6.27cd–45ab).<sup>57</sup> The properties of water boiled after placing a noble metal or (semi-)precious stone in it are separately dealt with (6.45cd–49).

A.s.Sū.6.50 = A.h.Sū.5.19.

A.s.Sū.6.51ab replaces A.h.Sū.5.20ab.

The section on milk (6.51–75) and dairy produce is slightly longer than in the *Hṛdaya*.

A.s.Sū.6.51cd–59 = A.h.Sū.5.20cd–29ab.

Two verses (6.60–61) on the effects of milk on persons with particular habits are added.

A.h.Sū.6.62–66 = A.h.Sū.5.29cd–35ab.

A.h.Sū.6.67 replaces A.h.Sū.5.35cd.

A.h.Sū.6.68–72ab = A.h.Sū.5.36–40.



An ardhāśloka on old ghee (6.72cd) is added, followed by one on ghṛtamaṇḍa<sup>58</sup> (6.73ab).

A.s.Sū.6.73cd–74ab replaces A.h.Sū.5.41ab; dadhikūcīkā is mentioned instead of the kūrckā of the *Hṛdaya*, moraṭa instead of moraṇa; takrapīṇḍaka and kṣīraśāka<sup>59</sup> are added items.

A.s.Sū.6.74cd = A.h.Sū.5.41cd.

A.s.Sū.6.75ab is an addition.

A.s.Sū.6.75cd = A.h.Sū.5.42ab.

The section on the sugarcane and its products, to which other kinds of sugar and honey are added, is also expanded (6.76–93).

A.s.Sū.6.76–77ab = A.h.Sū.5.42cd–43ab.

An ardhāśloka on the properties of sugarcane juice is added (6.77cd).

A.s.Sū.6.78–84ab = A.h.Sū.5.43cd–50ab.

An ardhāśloka on sugar prepared from other plants is added (6.84cd).

A.s.Sū.6.85–88ab = A.h.Sū.5.50cd–53.

A verse explaining why heated honey should never be used is added (6.88cd–89ab).

A.s.Sū.6.89cd–90ab = A.h.Sū.5.54.

Some verses on the actions of honey are added (6.90cd–92).<sup>60</sup>

The last verse of this section mentions the four kinds of honey: bhrāmara, pauspika, kṣaudra and mākṣika; their good qualities increase in the mentioned order,<sup>61</sup> when old, only kṣaudra and mākṣika honey should be used (6.93).

The next section is on oils (6.94–106ab) and animal fats (6.106cd–109ab).

A.s.Sū.6.94–95 = A.h.Sū.5.55–56.

A verse on the general actions of oils is added (6.96).

A.s.Sū.6.97–98 = A.h.Sū.5.57–58 (the oils of eraṇḍa and raktairāṇḍa).

A.s.Sū.6.99ab = A.h.Sū.5.61ab (the oils of umā and kusumbha).

The *Aṣṭāṅgasamgraha* adds the oils of dantī, mūlaka, rakṣoghna, karañja, ariṣṭa, śigru, suvarcalā, īṅgudī, pīlu, śaṅkhinī, and nīpa, the oils made from the heartwood (sāra) of sarala, agaru, devāhva and śiṃśapā, those of tuvara, aruṣkara, karañja, nimba, akṣa, atimuktaka, akṣoḍa, nālikera, madhūka, trapusa, ervāru, kūṣmāṇḍa, śleṣmātaka, priyāla, śrīparṇī, and kiṃśuka (6.99cd–105).<sup>62</sup> The verses on sarśapa,<sup>63</sup> akṣa and nimba oil of the *Hṛdaya* (Sū.5.59–60) are absent from the *Samgraha*.<sup>64</sup>

Sesamum oil is regarded as the best, kusumbha oil as the worst kind (6.106ab).<sup>65</sup>

A.s.Sū.6.106cd–107ab = A.h.Sū.5.61cd–62ab.

The best sources of vaśā are the bulūka,<sup>66</sup> hog (sūkara), pākahaṃsa, and cock (kukkuṭa);<sup>67</sup> bad sources are the kumbhīra, buffalo (mahiṣa), kākamadgu, and kāraṇḍa (6.107cd–108);<sup>68</sup> the best medas is that of the goat,<sup>69</sup> the worst that of the elephant (6.109ab).<sup>70</sup>

The section that follows is about fermented, particularly alcoholic, fluids (6.109cd–134).

A.s.Sū.6.109cd–115ab = A.h.Sū.5.62cd–68.

The properties of jagala, medaka and bakkasa, which are related to vāruṇī, are added (6.115cd–116).<sup>71</sup>

A.s.Sū.6.117–118ab = A.h.Sū.5.69–70ab.

The properties of kauhalī and ariṣṭa are added (6.118cd).

A.s.Sū.6.119–124ab = A.h.Sū.5.70cd–75.

Verses on surāsava, maireya, dhātakyabhiṣṭa, drākṣāsava, mṛdvikāsava, ikṣurasā-sava are added (6.124cd–126), followed by verses on the general properties of āsava (6.127ab), the five best sources for preparing an alcoholic drink, and the properties of alcoholic drinks when prepared from a mixture of source materials (6.127cd–128).

A.s.Sū.6.129–134 = A.h.Sū.5.76–81.

A section on various kinds of urine, animal excrements, bile, and rocanā (6.135–142) ends the chapter.<sup>72</sup>

Some verses on the properties and medicinal uses of urines, also mentioning that cow's urine is the best kind, are added (6.137–139ab), followed by verses on the properties and medicinal actions of various kinds of animal excrements (6.139cd–141). The last substances described are bile, gallstones (rocanā) and human urine (6.142).

The concluding verse (6.143) is identical with that found in the *Hṛdaya* (Sū.5.84).

Chapter seven (annasvarūpavijñānīya) is much longer again than the corresponding chapter of the *Hṛdaya* (Sū.6).<sup>73</sup>

The chapter begins with a section on śūkadhānya (7.2–21).

A.s.Sū.7.2–12ab = A.h.Sū.6.1–11ab.

The tṛṇadhānya group (7.12cd–15) is much larger;<sup>74</sup> added are: jūrṇāhva,<sup>75</sup> gadī, varuṇapādikā, toyaśyāmāka,<sup>76</sup> hastiśyāmāka,<sup>77</sup> śilbika (or śilbikā), śiśira, uddāla,<sup>78</sup> nīvāra,<sup>79</sup> varūka,<sup>80</sup> baraka,<sup>81</sup> utkāṣa,<sup>82</sup> madhūlikā,<sup>83</sup> antanirguṇḍī, veṇuparṇī, praśāntikā,<sup>84</sup> gavethu,<sup>85</sup> kāṇḍa,<sup>86</sup> lauhitya,<sup>87</sup> toyaparṇī,<sup>88</sup> and mukundara<sup>89</sup> (7.12cd–15).

A.s.Sū.7.16 = A.h.Sū.6.12cd–13ab.

A verse is added on the properties of uddālaka, nīvāra and madhūlikā (7.17).

A.s.Sū.7.18–19ab = A.h.Sū.6.13cd–14.

A.s.Sū.19cd–20ab agrees with A.h.Sū.6.15ab on anuyava and vaṃśajayava (= ve-nuyava).

A.s.Sū.7.20cd–21 = A.h.Sū.6.15cd–16.

The first part (7.22–29) of the section on śimbidhānya differs from that of the *Hṛdaya* and has no verses in common with it. The items forming part of śimbidhānya, mentioned in the first verse (7.22), are: mudga, maṅgalya, vanamudga, makuṣṭhaka, masūraka, āḍhaki,<sup>90</sup> and caṇaka.<sup>91</sup> Their general properties and actions are enumerated (7.23–24ab).<sup>92</sup> The best kinds and varieties for particular purposes are mentioned (7.24cd–25).<sup>93</sup>

The properties and actions of rājamāṣa, kulattha and niṣpāva are described (7.26–29).<sup>94</sup>

A.s.Sū.7.30–31ab = A.h.Sū.6.21cd–22.

A.s.Sū.7.31cd deals with kuśāmraśimbī.

The general properties and actions of the remaining śimbidhānyas are mentioned (7.32).

The properties and actions of sesamum (tila) form the next subject (7.33–34ab);<sup>95</sup> the black variety is the best, followed by the white one; the red variety is less esteemed (7.34cd).

A.s.Sū.7.35 = A.h.Sū.6.24.

A.s.Sū.7.36a–c = A.h.Sū.6.25a–c.

A.s.Sū.7.36d–37ab is an expansion of A.h.Sū.6.25d.

A.s.Sū.7.37cd = A.h.Sū.6.26ab.

The next section is about prepared foods (kṛtāṇṇa).

A.s.Sū.7.38–43 = A.h.Sū.6.26cd–32ab.

The verses on meat broth (rasa) (7.44–46ab) are an expanded version of A.h.Sū.6.32cd.

A.s.Sū.7.46cd–47ab = A.h.Sū.6.33.

An ardhaśloka on māśa soup is added (7.47cd).

Various dishes, together with their properties, are described: khala,<sup>96</sup> kām̐balika<sup>97</sup> and dakalāvaṇika<sup>98</sup> (7.48–50ab).

The heaviness (gaurava) of yūṣa, rasa, sūpa and śāka is said to increase in the mentioned order (7.50cd–51ab).

A.s.Sū.7.51cd–52ab = A.h.Sū.6.34.

Dishes added are parpaṭa and kṣāraparpaṭa (7.52cd), rāga and ṣḍava<sup>99</sup> (7.53–54).

A.s.Sū.7.55–58ab = A.h.Sū.6.35–38ab.

An ardhaśloka on the actions of dhānā is added (7.58cd).

A.s.Sū.7.59ab = A.h.Sū.6.38cd.<sup>100</sup>

Dishes added are saktupīṇḍī (7.59cd), avalehikā and śaṣkulīmodaka<sup>101</sup> (7.60).

A.s.Sū.7.61 = A.h.Sū.6.39cd–40ab.

A verse on the properties and actions of saktu is added (7.62).

A.s.Sū.7.63–64 = A.h.Sū.6.40cd–42.

The section on animals and their flesh (7.65–110) begins with an enumeration of the group of animals called mṛga<sup>102</sup> (7.65–66).<sup>103</sup> This group contains more species than found in the list of the *Hṛdaya*. Added are: kālapucchaka,<sup>104</sup> varapota,<sup>105</sup> śvadaṁṣṭra,<sup>106</sup> rāma,<sup>107</sup> kohakāraka,<sup>108</sup> karāla,<sup>109</sup> kṛtamāla,<sup>110</sup> and pṛṣata.<sup>111</sup>

A.s.Sū.7.67–69ab = A.h.Sū.6.44–46ab (the viṣkira group).

The pratuda group (7.69cd–73ab) is larger<sup>112</sup> than in the *Hṛdaya* (Sū.6.46cd–47ab).<sup>113</sup> Added are: śatapattrā,<sup>114</sup> koyaṣṭī,<sup>115</sup> khañjarīṭaka,<sup>116</sup> durnāmāri,<sup>117</sup> kṛṣā-grahā,<sup>118</sup> laḍḍa,<sup>119</sup> vatahan,<sup>120</sup> gokṣvela,<sup>121</sup> ḍiṇḍimāṇava,<sup>122</sup> jaṭī,<sup>123</sup> dundubhi,<sup>124</sup> pākāra,<sup>125</sup> lohapaṛṣṭha,<sup>126</sup> kulīṅgaka,<sup>127</sup> śārṅgākhyā,<sup>128</sup> cīrīṭī(ka),<sup>129</sup> kaṅku,<sup>130</sup> ya-ṣṭikā,<sup>131</sup> mañjarīyaka,<sup>132</sup> godhāputra,<sup>133</sup> priyātmaja,<sup>134</sup> kalavinka,<sup>135</sup> parabhiṭa,<sup>136</sup> āṅgaracūḍaka,<sup>137</sup> pārāvata,<sup>138</sup> and pāṇavika.<sup>139</sup>

The bileśaya group (7.73cd–74) is larger than in the *Hṛdaya* (Sū.6.47cd).<sup>140</sup> Added are: śveta-, śyāma-, citrapṛṣṭha- and kālakakākulīmṛga,<sup>141</sup> cillāṭa,<sup>142</sup> kūcīkā,<sup>143</sup> śalyaka,<sup>144</sup> śāṇḍaka,<sup>145</sup> vṛṣāhi,<sup>146</sup> kadālī,<sup>147</sup> and nakula.<sup>148</sup>

A.s.Sū.7.75–77ab = A.h.Sū.6.48–50ab (the prasaha group).

A.s.Sū.7.77cd–78ab = A.h.Sū.6.50cd–51ab (the mahāmṛga group).

The jalacārīn group of birds (7.78cd–80) is larger than the corresponding apcara group of the *Hṛdaya* (Sū.6.51cd–52ab).<sup>149</sup> Added are: mṛṇālakaṇṭha,<sup>150</sup> raktaśī-rṣaka,<sup>151</sup> puṇḍarikākṣa,<sup>152</sup> śārārī,<sup>153</sup> manituṇḍaka,<sup>154</sup> kākatuṇḍa,<sup>155</sup> ghanārāva,<sup>156</sup> ambukukkūṭa,<sup>157</sup> nadyāśya,<sup>158</sup> and mallika.<sup>159</sup>

A.s.Sū.7.81–83 = A.h.Sū.6.52cd–55ab.

An ardhaśloka on the larger groupings is added (7.84ab).

A.s.Sū.7.84cd = A.h.Sū.6.55cd.

An ardhaśloka on the flesh of jāṅgala animals is added (7.85ab).<sup>160</sup>

A.s.Sū.7.85cd = A.h.Sū.6.56ab.

Verses added are about the flesh of the harīṇa, an animal of a coppery (tāmra) colour, the eṇa, of a black colour,<sup>161</sup> and the śaśa,<sup>162</sup> followed by that of the birds called lāva and kapiñjala<sup>163</sup> (7.86–87). The wild (vanya) pārāvata and kapota are also added (7.88ab).<sup>164</sup>

A.s.Sū.7.88cd–89 = A.h.Sū.6.57–58ab.

An ardhaśloka on the tittiri is added (7.90ab).<sup>165</sup>

A.s.Sū.7.90cd–92ab = A.h.Sū.6.58cd–60ab.

A.s.Sū.7.92cd–93ab = A.h.Sū.6.61–62ab.<sup>166</sup>

A.s.Sū.7.93cd replaces A.h.Sū.6.62cd.

A.s.Sū.7.94ab = A.h.Sū.6.63ab.

An ardhaśloka on the flesh of the godhā<sup>167</sup> and mūṣika is added (7.95ab).

A.s.Sū.7.95cd–97 = A.h.Sū.6.65, 60cd, 66.

An ardhaśloka on the haṃsa is added (7.98ab).<sup>168</sup>

A.s.Sū.7.98cd–100 replaces A.h.Sū.6.67ab. These verses deal with the properties of fish, in particular the rohita, which is the best, and the cilicima, which is the worst kind; a half-verse on the kulīra is added.

A.s.Sū.7.101–102ab = A.h.Sū.6.63cd–64.

A.s.Sū.7.102cd–103 takes the place of A.h.Sū.6.68.

A.s.Sū.7.104–106a takes the place of A.h.Sū.6.67cd. These verses enumerate those animals which are the best among the members of their group: eṇa, kuraṅga, harīṇa and śaśa (among the mṛgas), lāva, kapiñjala, tittiri and mṛakara (among the vīṣkiras), godhā and śvāvidh (among the bileśayas), ṛḍhra and lion (among the prasahas), śārikā (among the pratudas), nyaṅku (among the mahānṛgas), haṃsa (among the jalacārins), rohita, kacchapa and varṣmī (among the aquatic animals);<sup>169</sup> the very best among their respective groups are the lāva,<sup>170</sup> eṇa,<sup>171</sup> godhā,<sup>172</sup> and lion.

A.s.Sū.7.106b–d enumerates the animals not suitable for consumption: cow, frog, ṛṣya and kāṇakapota.

A.s.Sū.7.107 is concerned with the merits, respectively demerits, of eggs, the flesh of young, and that of old animals.

A.s.Sū.7.108–110 = A.h.Sū.6.69–71.

The next section is that on vegetables (śāka) (7.111–165).

A.s.Sū.7.111–121 = A.h.Sū.6.72–82.

Some verses are added on vegetables which resemble in their properties and actions those described in the preceding verses (7.118–121). The plants mentioned (7.122–124ab) are: śyāmā,<sup>173</sup> śālmali,<sup>174</sup> kāśmārya, bhañjī,<sup>175</sup> karṇaka,<sup>176</sup> yūthikā,<sup>177</sup> vṛkṣādīnī,<sup>178</sup> kṣīravṛkṣa,<sup>179</sup> bimbī,<sup>180</sup> tanika,<sup>181</sup> vṛkṣaka,<sup>182</sup> lodhra,<sup>183</sup> śaṇa,<sup>184</sup> kacchudāra,<sup>185</sup> śelu,<sup>186</sup> vṛṣamuṣṭikā,<sup>187</sup> bhallātaka,<sup>188</sup> kovidāra,<sup>189</sup> kamala,<sup>190</sup> utpala,<sup>191</sup> and kiṃśuka.<sup>192</sup> A verse on the properties and actions of bhañjī and abhīruja karīra<sup>193</sup> is added too (7.124cd–125ab).

A.s.Sū.7.125cd–129ab = A.h.Sū.6.83–86.

An added verse (7.129cd–130ab) says that *jīvantī* is the very best vegetable; <sup>194</sup> *bhaṇḍī*, <sup>195</sup> *parvaṇī* <sup>196</sup> and *parvapūspikā* <sup>197</sup> are described as eliminating *vāta* and *pitta*.

A.s.Sū.7.130cd–134 = A.h.Sū.6.87–91ab.

A.s.Sū.7.135ab differs from A.h.Sū.6.91cd in adding *śṛṅgāṭaka* and *kaṣeruka*, while omitting *kumuda*– and *utpalakandaka*. <sup>198</sup>

A.s.Sū.7.135cd–136ab differs from A.h.Sū.6.92 in omitting *śṛṅgāṭaka* and *kaṣeruka* and adding *kadamba*. <sup>199</sup>

A.s.Sū.7.136cd–137ab = A.h.Sū.6.93.

A.s.Sū.7.137cd–138 takes the place of A.h.Sū.6.94ab; the *jīvanta*, *jhuñjhu* and *e-ḍagaja* of the *Hṛdaya* are absent; extra items are *yātukā*, <sup>200</sup> *sālakalyāṇī*, <sup>201</sup> *śrīparṇī*, <sup>202</sup> *pīluparṇikā*, <sup>203</sup> *kumārī*, <sup>204</sup> *jīva*, <sup>205</sup> *loṇīkā*, <sup>206</sup> *kuśmāṇḍa*, <sup>207</sup> *nīlinī*, <sup>208</sup> *svarcā*, <sup>209</sup> *vṛka-dhūmaka*, <sup>210</sup> and *lakṣmaṇā*. <sup>211</sup>

A.s.Sū.7.139ab = A.h.Sū.6.94cd. <sup>212</sup>

A.s.Sū.7.139cd, an addition, mentions *jīvantika*, <sup>213</sup> *cuñcuparṇī*, <sup>214</sup> *prapunnāṭa*, <sup>215</sup> and *kuberaka*. <sup>216</sup>

A.s.Sū.7.140–143 = A.h.Sū.6.95–98.

A.h.Sū.6.99 on *śatāvartī* sprouts (*aṅkura*) and *vaṃśakarīra* is absent; its place is taken by A.s.Sū.7.144–146, where the following vegetables are mentioned: *ūrupūkā*, <sup>217</sup> *lāṅgalī*, <sup>218</sup> *ṭīla*, <sup>219</sup> *vetasa*, <sup>220</sup> *pañcāṅgula*, <sup>221</sup> *vaṃśakarīra*, <sup>222</sup> *bilva*, <sup>223</sup> *rāśnā*, <sup>224</sup> *balā*, <sup>225</sup> *vatsādanī*, <sup>226</sup> *gaṇḍīra*, <sup>227</sup> and *citraka*. <sup>228</sup>

A.s.Sū.7.147–148ab = A.h.Sū.6.100–101ab.

A.s.Sū.7.148cd–149ab, on *sārśapaśāka*, <sup>229</sup> the worst kind of vegetable, replaces A.h.Sū.6.101cd.

A.s.Sū.7.149cd–151ab = A.h.Sū.6.102–103.

A.s.Sū.7.151cd takes the place of A.h.Sū.6.104ab.

A.s.Sū.7.152–153 = A.h.Sū.6.104cd–106ab.

A.s.Sū.7.154 adds a number of plants to those mentioned at A.h.Sū.6.106ab; these plants form the *haritaka* group, <sup>230</sup> a term absent from the *Hṛdaya*; the group consists of: *dhānya*, <sup>231</sup> *tumburu*, <sup>232</sup> *śaileya*, <sup>233</sup> *yavānī*, <sup>234</sup> *śṛṅgiveraka* (or *śṛṅgiverakā*), <sup>235</sup> *parṇāsa*, <sup>236</sup> *grñjana*, <sup>237</sup> *ajāji*, <sup>238</sup> *jiraka*, <sup>239</sup> and *gajapippalī*. <sup>240</sup>

A.s.Sū.7.155–157 replaces A.h.Sū.6.106cd–107; these verses, on the properties and actions of the *haritaka* group of vegetables, add some more plants belonging to it: *kharāhvā*, <sup>241</sup> *kālamālikā*, <sup>242</sup> *dīpyaka*, <sup>243</sup> *kṣavaka*, <sup>244</sup> *dvīpi*, <sup>245</sup> and *bastagandhā*. <sup>246</sup>

A.s.Sū.7.158a–c = A.h.Sū.6.108a–c; 7.158d differs from A.h.Sū.6.108d and mentions *dhānakā*. <sup>247</sup>

A.s.Sū.7.159, an addition, is about *kharāhvā* and *citraka*.

A.s.Sū.7.160–161ab, on garlic (*laśuna*), takes the place of A.h.Sū.6.109cd–110ab, on the same subject. A.h.Sū.6.109ab, on *ārdrikā*, is absent from the *Samgraha*.

A.s.Sū.7.161cd, still on garlic, is identical with A.h.Sū.6.110cd.

A.s.Sū.7.162 = A.h.Sū.6.111.

A.s.Sū.7.163 takes the place of A.h.Sū.6.112ab.

The verse on *grñjanaka* of the *Hṛdaya* (Sū.6.112cd–113ab) misses in the *Samgraha*.

A.s.Sū.7.164–165 = A.h.Sū.6.113cd–115ab.

The section on fruits (7.166–207ab) also contains a number of additions.

A.s.Sū.7.166–172 = A.h.Sū.6.115cd–122ab.

Some verses (7.173–175ab) are added; they deal with nālikera,<sup>248</sup> moca,<sup>249</sup> and the fruit of rājādāna.<sup>250</sup>

A.s.Sū.7.175cd–176ab = A.h.Sū.6.122cd–123ab.

An ardhaśloka on the fruits of madhūka<sup>251</sup> and badara<sup>252</sup> is added (7.176cd).

A.s.Sū.7.177–178 = A.h.Sū.6.123cd–125ab.

A.h.Sū.6.125cd–126ab on the fruit of bilva is absent.

A.s.Sū.7.179–181 are added; they deal with the fruits of tinduka,<sup>253</sup> aśmantaka,<sup>254</sup> aśina (or āśina),<sup>255</sup> phalini,<sup>256</sup> bimbi,<sup>257</sup> todana,<sup>258</sup> taṅka,<sup>259</sup> aśvakarṇa,<sup>260</sup> bakula,<sup>261</sup> gāṅgeru,<sup>262</sup> dhava,<sup>263</sup> dhanvana,<sup>264</sup> śvetapāka,<sup>265</sup> kapittha,<sup>266</sup> siṅcatī,<sup>267</sup> bhavya,<sup>268</sup> jambū,<sup>269</sup> kṣīrivr̥kṣa,<sup>270</sup> and puṣkara.<sup>271</sup>

A.s.Sū.7.182–183 on the fruit of kapittha occurs instead of A.h.Sū.6.126cd–127ab.

The verses of the *Hṛdaya* on jambū fruit<sup>272</sup> and the mango (āmra)<sup>273</sup> (Sū.6.127cd–129ab) are absent.

Verses added (7.184–190) are about the properties and actions of the fruits of siṅcatikā, bhavya, jambū, kṣīrivr̥kṣa, akṣakī,<sup>274</sup> āmra, the juice of sahakāra fruit,<sup>275</sup> the fruit of lavalī<sup>276</sup> and bilva.<sup>277</sup>

A.s.Sū.7.191ab is related to A.h.Sū.6.129cd.

A.s.Sū.7.191cd and 192 are added; they are concerned with the fruit of kośānla,<sup>278</sup> karañja,<sup>279</sup> and śamī.<sup>280</sup>

A.s.Sū.7.193, on the fruit of pīlu, takes the place of A.h.Sū.6.130.

A.s.Sū.7.194ab = A.h.Sū.6.131ab.

A.s.Sū.7.194cd–195ab, an addition, describes the fruits of nīpa,<sup>281</sup> śatākṣika,<sup>282</sup> prācīnāgara,<sup>283</sup> tṛṇaśūlya,<sup>284</sup> iṅgudī,<sup>285</sup> and vikaṅkata.<sup>286</sup>

A.s.Sū.7.195cd–207ab = A.h.Sū.6.131cd–143ab.

The section on medicinal substances (auśadhavarga) of the *Hṛdaya* (Sū.6.143cd–171) is absent from the *Saṃgraha*. Instead, a mātrādīprakaraṇa is found (7.207cd–261), which deals with a variety of subjects.

This section is introduced by a series of verses (7.207cd–210).

First, the dependence of the effects of medicinal substances on the dosage employed<sup>287</sup> and the combination with other substances<sup>288</sup> is described by means of examples (7.211–217); next, the changes of qualities, resulting from the way of preparation, are discussed<sup>289</sup> (7.218–228).

A number of verses are devoted to the subject of dehasātmya, i.e., substances suitable to particular peoples and unwholesome to others (7.229–233).<sup>290</sup> Peoples mentioned are the maruvāsins, Prācyas, Saindhavas, Āśmakas, those living in Malaya and Koriṇṇa, the Udīcyas, Avantis, Bālhiṅkas, Bālhavas, Cīnas, Śūlikas, Yavanas, and Śakas.

Examples of sātmya of various types are given (7.234–237).

Numerous verses are concerned with the varying effects of substances, pharmaceutical preparations and remedial measures in general, dependent on the disease of the patient, the doṣa(s) involved, the season in which the disease occurs, etc. (7.238–259).

The concluding verses declare that an intelligent physician should take into con-

sideration all these manifold (vicitra) factors (dharma), subtle (sūkṣma) and difficult to evaluate (durlabha hetuka), not taught by science, and to be assessed by himself.<sup>291</sup>

Chapter eight (annarakṣāvidhi) deals with the protection of the king from poison, one of the functions of the royal physician (prāñcārya); it corresponds to the first part of chapter seven of the *Hṛdaya*, but is much more elaborate.

The first part of this chapter (8.1–20) is in prose.

The chapter begins with stressing the importance of protecting wealthy people, and in particular a king, from being poisoned, and the place of the court physician as the one chiefly entrusted with this task (8.2–3).<sup>292</sup> Kings are said to be vulnerable to diseases on account of their way of living (8.3). Precautions concerning the royal meal (8.4–5) and some general characteristics of poisoned food (8.6)<sup>293</sup> are described, followed by the signs of poisoning exhibited by a series of dietary items (8.7–8).<sup>294</sup>

The next subjects are: characteristics enabling one to recognize a poisoner (viṣaḍa) (8.9);<sup>295</sup> the testing of foods by burning them and examining the colour, form, smell, and other features of the flames and the fire (8.10);<sup>296</sup> the treatment of disorders caused by inhaling the smoke of burned poisoned substances (8.11); the testing of foods by feeding them to various animals, which react to poison in a specific way (8.12);<sup>297</sup> the treatment of disorders caused by inhaling the vapours (bāṣpa) of burning poisoned foods (8.13)<sup>298</sup> and by touching poisoned substances (8.13);<sup>299</sup> the symptoms occurring when poisoned food is being swallowed down; their treatment;<sup>300</sup> the symptoms occurring when poisoned food has reached the āmāśaya (8.14);<sup>301</sup> their treatment (8.15);<sup>302</sup> the symptoms indicating that the poison has reached the pakvāśaya;<sup>303</sup> their treatment (8.16); the symptoms caused by a poisoned collyrium,<sup>304</sup> errhine (nasya), or dhūma;<sup>305</sup> the treatment of these conditions (8.17);<sup>306</sup> the symptoms caused by a poisoned substance used for abhyaṅga and the treatment of these symptoms;<sup>307</sup> the same symptoms are caused by poisoned substances used for udvartana, gharṣaṇa,<sup>308</sup> pariṣeka<sup>309</sup> and anulepana,<sup>310</sup> by poisoned ornaments (bhūṣaṇa),<sup>311</sup> vehicles (yāna),<sup>312</sup> couches (śayyā),<sup>313</sup> bedding (āstaraṇa), clothing (vastra),<sup>314</sup> armour (kavaca),<sup>315</sup> wooden sandals (pādukā),<sup>316</sup> shoes (upānah),<sup>317</sup> and foot–stools (pādapīṭha);<sup>318</sup> their treatment should be carried out on the same lines (8.17); specific treatment of the disorders caused by poisoned ornaments (ābharāṇa),<sup>319</sup> foot–stools, parasols (chattra), chowries (cāmara), and fans (vyajana) (8.18); the symptoms caused by poisoned oils for inunction of the head (śiro'bhyaṅga); their treatment;<sup>320</sup> the same measures are applicable in disorders caused by poisoned water for washing the head, poisoned combs (kaṅkata),<sup>321</sup> garlands (śraja),<sup>322</sup> and headcoverings (uṣṇīṣa)<sup>323</sup> (8.19); the symptoms caused by poisoned oils for filling the auditory duct (karṇapūraṇa)<sup>324</sup> and by poisoned cosmetics (mukhālepa);<sup>325</sup> their treatment (8.20).

Some verses are devoted to various measures to be taken by the physician in order to protect the king and his food (8.21–25ab).

The next section, in verse, is concerned with the storage room for medicines (bheṣajāgāra)<sup>326</sup> and its location (8.25cd–26ab);<sup>327</sup> the royal kitchen (mahānasa), its construction and location, the personnel to be employed,<sup>328</sup> and the qualities required for

these persons<sup>329</sup> (8.26cd–31);<sup>330</sup> the qualities required in the royal physician, who also accompanies the army on march (8.32–33);<sup>331</sup> the measures to be taken by the physician for protection of the army from being poisoned in all sorts of ways (8.34–40);<sup>332</sup> the characteristics of poisoned water and soil, and the counter-measures to be taken (8.41–48ab);<sup>333</sup> the same concerning poisoned air (8.48cd–53ab);<sup>334</sup> the poison-girl (8.53cd–56);<sup>335</sup> precautions the king should take concerning his food (8.57).

A verse (8.58) introduces a long prose passage on the preparation of an antidote (agada), a collyrium (añjana) in this case, called sarvārthasiddha, to be employed by kings, high officials (mahāmātra),<sup>336</sup> brāhmaṇas studying the Vedas and other sciences, etc. This drug, to be prepared very carefully,<sup>337</sup> accompanied by rituals, derives from the king of Videha; earlier, it was given by the Aśvins to Indra in order to enable him to kill Vṛtra.<sup>338</sup> It should be administered while muttering a dhāṛiṇī addressed to the Tathāgata, Arhant Samyakṣambuddha. Many divinities and sages are to receive homage during one of the stages of the process of preparation: Āryāvalokiteśvara, Āryatārā, Brahmā, Dakṣa, the Aśvins, Rudra, Indra, Āditya, Soma, Varuṇa, Vaiśvānara,<sup>339</sup> Vāyu, Viṣṇu, Janaka, Bharadvāja, Dhanvantari, Suśruta, Bhavya,<sup>340</sup> Sukanyā,<sup>341</sup> Skanda, Cyavana, Vainateya,<sup>342</sup> and others (8.59–61).

The remaining part of the chapter, in verse, begins with preparations, devised by Br̥haspati, which, when sprinkled on various objects, make poisons innocuous; these preparations are meant for royal use (8.62–66). It proceeds with another preparation, to be mounted in gold, which, worn as a jewel, neutralizes poisons (8.67–69ab), and one more of the same type, called saumyākhyāgada (8.69cd–71ab). The plants called mūṣikā and ajaruhā, tied to the wrist (hastabaddha), perform the same function (8.71cd).<sup>343</sup>

Another drug, when rubbed on musical instruments and banners, has the same effect again (8.72–73).

A series of verses contain various recipes of antidotes for use by the king (8.74–96).<sup>344</sup> Substances of animal origin,<sup>345</sup> as well as metals, form conspicuous ingredients of these and the preceding compound drugs. An authority quoted is Gautama (8.86). Hṛdayāvaraṇa by means of ajeya- and amṛtaghṛta is also mentioned (8.89).<sup>346</sup>

The last part of the chapter describes how the physician should behave towards the king in general (8.97–108ab), and with regard to a number of specific duties, in particular ritual activities for protection of the king<sup>347</sup> (8.108cd–113).

The chapter ends with two concluding verses (8.114–115).<sup>348</sup>

Chapter nine (viruddhānnavijñānīya), about antagonistic (viruddha) foods, which should not be eaten together, and a variety of other subjects, corresponds to the second and third parts of chapter seven of the *Hṛdaya*.

The chapter begins with foods to be avoided in combination with the flesh of domestic animals, those living in marshy regions, and aquatic animals;<sup>349</sup> the combination of fish and milk is particularly unwholesome, and among fish the one called cilicima;<sup>350</sup> the cilicima is described (9.2).<sup>351</sup> Other articles of diet not going together with milk are enumerated (9.3).<sup>352</sup> A long series of antagonistic combinations of foods, drinks and anupānas follow (9.3–6).<sup>353</sup> Antagonistic drugs are not dealt with, on ac-



count of the complexity of the subject and the difficulties involved (9.6).

After this section in prose, verses follow.

First, some stanzas describe antagonism (*virodha*) in general (9.7–8), examples of this interaction, its bad effects, and the general lines of treatment to be adopted (9.9–12ab).<sup>354</sup>

A.s.Sū.9.12cd–13 = A.h.Sū.7.46cd–47.

Some additional verses state that the rules about antagonism do not apply in diseased conditions, where antagonistic or normally unwholesome articles may prove to be of curative value (9.14–15).

The procedure to be adopted in giving up unhealthy dietary habits is discussed; one quarter of the unwholesome item should be replaced by the same quantity of something wholesome with intervals of one, two or three days, until the process is completed (9.16–17).<sup>355</sup>

The three upastambha(na)s (mainstays of the body) are dealt with in prose; these consist of food, sleep and enjoyment (*abrahmacarya*) (9.18).<sup>356</sup>

The next section, in verse, is concerned with sleep.

Three verses describe the physiology of sleep, which is a state chiefly connected with *tamas* (9.19–21).

A.s.Sū.9.22–23 = A.h.Sū.7.53cd–55.

An additional verse (9.24) compares the beneficial effects of sleep with those of *tapas*.

A.s.Sū.9.25–29 = A.h.Sū.7.55cd–60.

The disorders arising from unhealthy sleeping habits (*ahitanidrā*) are described (9.30–32ab),<sup>357</sup> followed by the way in which the need to sleep long hours (*atinidrātā*) arises (9.32cd–33). The treatment of this condition is discussed (9.34–35).<sup>358</sup> The verses on the causes (7.36)<sup>359</sup> and symptoms of insomnia (*nidrānāśa*) (9.37–39)<sup>360</sup> give more details than those of the *Hṛdaya*.

An *ardhaśloka* on the curability of insomnia is added (9.40ab).

A.s.Sū.9.40cd–41 = A.h.Sū.7.65–66ab.

The treatment of insomnia is more elaborate (9.42–46) than in the *Hṛdaya*, though part of the verses are identical.<sup>361</sup>

A.s.Sū.9.47ab = A.h.Sū.7.68cd.

An additional *ardhaśloka* says that the measures provoking sleep in someone sleepless should be avoided by those sleeping too much (9.47cd).

The last verse on sleep (9.48) enumerates healthy and unhealthy types of sleep.<sup>362</sup>

The section that follows gives rules concerning sexual behaviour (*grāmyadharmā*) (9.45–59)<sup>363</sup> in prose and verse; this section corresponds to A.h.Sū.7.69–76.<sup>364</sup>

The passage in prose (9.45) lists women to be avoided, improper times for intercourse, and some rules for the male partner. The verses formulate rules to be observed by the male preceding intercourse (9.46–47), the frequency of cohabitation during the various seasons (9.48ab), the proper behaviour of the male after intercourse (9.48cd–49), the beneficial results of these practices when duly observed, and the bad effects of neglecting them (9.50–51). The disorders resulting from too much sex are enumerated (9.52–53); the age limits (sixteen and seventy years) of sexual activity are mentioned

(9.54). The good results of complying with the rules and the bad ones of not heeding them end this section (9.55–59).

The next section discusses the reasons why a series of factors, usually leading to disease, may remain harmless; the appearance of disorders in other cases is attributed to the influence of karman (9.60–68).<sup>365</sup>

The verses that follow elaborate on this subject. They describe the effects of corrupted wind, water, place and time,<sup>366</sup> and the remedial measures to be taken when the karman of those suffering is not fixed (aniyata) (9.69–76).

The importance of keeping to the rules regarding the seasonal regimen is shortly stressed (9.77–78).

A section devoted to timely (kālamṛtyu) and untimely death (akālamṛtyu) follows (9.79–85).<sup>367</sup> The life span is said to depend on fate (daiva) and one's actions in the present life (puruṣakāra) (9.79), each of which is of three grades (śreṣṭha, madhya, avara); kāla- and akālamṛtyu are determined by the type of karman and puruṣakāra (9.80–85). The vedavādinah distinguish 101 kinds of death: one of these is kālamṛtyu, the remaining hundred are āgantu (9.86).<sup>368</sup> The killing of foes (bhrātṛvya) by means of the śyena sacrifice (yāga)<sup>369</sup> and other rituals, and the suicide of Dīrghaśravasa<sup>370</sup> are referred to (9.87). One should always protect one's life, for example by means of the mitravindā iṣṭi<sup>371</sup> (9.88). The four kinds of death of Buddhist doctrine are referred to (9.89ab). Untimely death is declared to be a phenomenon occurring under all sorts of circumstances, and recognized as such by all the āgamas; death, when taking place even in the presence of accomplished physicians, is to be regarded as akālamṛtyu (9.89cd–101). The unavoidability of death is emphasized and illustrated (9.102–106).

The chapter ends with verses recommending a healthy and virtuous way of life (9.107–115).

Chapter ten (annapānavidhi) is devoted to generalities about the intake of food.<sup>372</sup> A large part is in prose (10.1–13), a smaller part in verse (10.14–29).

The contents consist of: foods and drinks enjoyed in keeping with the rules constitute the support (āyatana) of life (āyus); they form the fuel of the internal fire, which maintains the body (10.2); seven factors relating to the intake of food should be taken into consideration: svabhāva (inherent nature),<sup>373</sup> saṃyoga (combination), saṃskāra (preparation), mātṛā (quantity), deśa (place), kāla (time), and upayoga (consumption); the svabhāva of an article of diet may change under the influence of saṃyoga, etc. (10.3);<sup>374</sup> saṃyoga,<sup>375</sup> saṃskāra,<sup>376</sup> mātṛā,<sup>377</sup> deśa<sup>378</sup> and upayoga<sup>379</sup> are explained (10.4); time bears on the season and (the stage of) the disease; its distinctive signs are digestion or absence of digestion (10.5);<sup>380</sup> many rules relating to the taking of a meal are formulated (10.6);<sup>381</sup> the actions of foodstuffs which are snigdha, laghu and uṣṇa are described,<sup>382</sup> followed by the effects of eating too slowly or too quickly<sup>383</sup> (10.7); the concepts of sātmya and asātmya form the next subject;<sup>384</sup> a number of different definitions of sātmya are recorded; three grades of sātmya are distinguished: pravara, madhya and avara;<sup>385</sup> hita (healthy) and ahita (unhealthy) foods are defined (10.8); four improper types of enjoying a meal should be avoided: samaśana, adhyaśana, amātṛāśana and viśamāśana; these terms are defined;<sup>386</sup> the proper materials for the vessels in

which particular dishes should be prepared are discussed (10.9),<sup>387</sup> and, subsequently, the proper places of the various items composing a meal, as well as the order in which dishes with particular main tastes should be consumed (10.10);<sup>388</sup> the kinds of anupāna to be selected as suitable in combination with particular dishes are enumerated;<sup>389</sup> an anupāna should always possess properties opposed to those of the dish<sup>390</sup> (10.11); the beneficial effects of an anupāna are dealt with; patients in whom it has an adverse effect are enumerated; the proper behaviour after taking an anupāna is described (10.12),<sup>391</sup> followed by prescriptions regarding the behaviour after finishing a meal (10.13);<sup>392</sup> articles of diet not to be enjoyed habitually are listed (10.14–17),<sup>393</sup> as well as those suitable to habitual use (10.18–20);<sup>394</sup> two verses praise the effects of a healthy diet (10.21–22).

A.s.Sū.10.23 = A.h.Sū.8.46cd–47ab.

Persons who should keep to the rule of the preceding verse are mentioned (10.24). A series of verses describe the effects of foods which are dry (rūkṣa), or too oleaginous (atisnigdha), hot, cold, liquid (drava), sweet, salt, sharp (tūkṣṇa), and sour (10.25–28).

The concluding verse praises the results of the observance of the rules (10.29).

Chapter eleven (mātrāsītīya) corresponds to part of the chapter of the same title (Sū.8) of the *Hṛdaya*.

The chapter begins with declaring that one should eat in measure (mātrāśin). The proper measure (mātrā) is defined by means of its effects (11.2).<sup>395</sup> The proper amounts of heavy and light foods are specified, together with the reasons for these prescriptions;<sup>396</sup> the effects of eating too little and too much are described;<sup>397</sup> the pathogenesis of *alasaka* and *viṣūcikā* is the next subject, because these diseases arise from overeating<sup>398</sup> (11.3).

A.s.Sū.11.4–5 = A.h.Sū.8.6cd–8ab.

The symptoms of three doṣic types of the disorder caused by overeating are described,<sup>399</sup> those of *alasaka*,<sup>400</sup> and those of an incurable type of *alasaka*<sup>401</sup> (11.6). The incurable type of *āmadoṣa* called *āmaviṣa* is the next subject (11.7),<sup>402</sup> followed by additional causes of corruption of *āma* (11.8).<sup>403</sup>

The treatment of curable cases of *āma*(doṣa) is discussed (11.9),<sup>404</sup> followed by a series of recipes in verse against *āmadoṣa* in general, *viṣūcikā* and *alasaka* (11.10–22).<sup>405</sup> Indications and contra-indications regarding the treatment with drugs are mentioned (11.23).<sup>406</sup> All the disorders arising from *āmadoṣa* are suitable to a treatment consisting of *apatarpaṇa* measures (11.24).<sup>407</sup> Three types of *apatarpaṇa* are distinguished: *laṅghana*, *laṅghanapācana* and *avasecana*, to be applied when the doṣas are present in a slight, moderate or large amount;<sup>408</sup> their effects are described by means of similes (11.25).

All disorders arising from *saṃtarpaṇa* are alleviated by *apatarpaṇa*, and the other way round.<sup>409</sup> This principle of treatment by remedial measures opposed to the aetiological factors (*nidānaviparīta*) is to be observed in other diseases too, but when these diseases nevertheless persist, one should shift to a type of therapy that is opposed to the disease itself (*vyādhiviparīta*) or *tadarthakārin*; the after-treatment is described (11.26).<sup>410</sup>

The remaining part of the chapter, in verse, deals with: signs of a fatal outcome (11.27); recipes against viṣūcī (11.28–29);<sup>411</sup> the three types of ajīrṇa and their symptoms (11.30–33).<sup>412</sup>

A.s.Sū. 11.34–35 = A.h.Sū. 8.27–28.

A fourth type of ajīrṇa, arising from a remnant of the rasa (rasaśeṣa), is described, together with its treatment (11.36–37).<sup>413</sup> Rules preventing the occurrence of ajīrṇa are formulated (11.38–44). The signs indicating that ajīrṇa has disappeared are enumerated (11.45).<sup>414</sup>

Diseases arise in general from prajñāparādha; viṣūcikā arises particularly in those keen on eating (11.46).

Observance of the rules concerning food is praised (11.47).

Chapter twelve (dvividhaṣaḍhavijñānīya), which has no counterpart in the *Hṛdaya*, is concerned with classifications of remedial measures and with the properties and actions of individual drugs.

Remedial measures (auśadha) are of two main categories: ūrjaskara (vitalizing) and rogaghna (counteracting diseases);<sup>415</sup> ūrjaskara is of two types: rasāyana and vājīkaraṇa,<sup>416</sup> as is rogaghna: rogaśāmaṇa (alleviating a disease) and apunarbhavakara<sup>417</sup> (eradicating, thus preventing recurrence); the rogaghna type is dravya (material) or adravya (immaterial);<sup>418</sup> a material auśadha is bhauma (inorganic), audbhida (of plant origin) or jaṇigama (of animal origin);<sup>419</sup> the inorganic substances, which will be discussed later, consist for the larger part of the series beginning with gold and ending with salts;<sup>420</sup> plants are of four kinds: vanaspati, vānaspatya, vīrudh and oṣadhi;<sup>421</sup> the characteristics of these groups are described;<sup>422</sup> substances of animal origin are all those deriving from animals, including honey, ghee, etc.<sup>423</sup> (12.2). Many items belonging to the immaterial remedial measures are listed.<sup>424</sup> These measures may be divided into three categories: daivavyapāśraya, yuktivyapāśraya and sattvāvajaya;<sup>425</sup> the items belonging to daivavyapāśraya<sup>426</sup> and yuktivyapāśraya<sup>427</sup> are enumerated; sattvāvajaya is defined.<sup>428</sup> Remedial measures can also be divided into apakarṣaṇa,<sup>429</sup> prakṛtivyaghāta,<sup>430</sup> and nidānatyāga<sup>431</sup> (12.3).

These three measures are of an external (bāhya) or internal (ābhyantara) kind. External apakarṣaṇa (removal) is carried out, in a number of diseases, by means of sharp instruments, blunt instruments, or the hands, internal apakarṣaṇa by means of emesis, purgation, etc.<sup>432</sup> Prakṛtivyaghāta is the same as śaṁśamana;<sup>433</sup> the items belonging to the external kind are enumerated;<sup>434</sup> the internal kind is defined.<sup>435</sup> Nidānatyāga (avoidance of aetiological factors) consists of the abstinence from particular foods and activities, dependent on the doṣa involved. Surgical treatment may be followed by treatment with drugs, but a disease that is curable by surgical intervention ought not to be treated with drugs (12.4).

Remedial measures can also be divided into hetuviparīta (counteracting the aetiological factors),<sup>436</sup> vyādhiviparīta (counteracting the disease),<sup>437</sup> and ubhayārthakārin (having both kinds of effect).<sup>438</sup> Hetuviparīta measures are illustrated by means of examples: light foods in diseases caused by heavy foods, etc. Vyādhiviparīta treatment consists of two main types, laṅghana and bṛṃhaṇa; further elements are: pañcakarman,

together with medicinal smoking (dhūma), fumigation (dhūpa), the application of collyria, etc., as well as vimlāpana, upanāhana, pāṭana, etc. (12.5). Examples are given of vyādhiviparīta and ubhayārthakārin types of therapy (12.6).

Measures which are not remedial (anausadha) are of two kinds: bādhana, i.e., immediately fatal, and anubādhana, i.e., having harmful effects after an interval of time (12.7).<sup>439</sup>

After this section in prose, verses follow (12.8–92).

The properties and actions of numerous medicinal substances are described: gold,<sup>440</sup> silver,<sup>441</sup> copper,<sup>442</sup> kāmśya,<sup>443</sup> pittala,<sup>444</sup> tin,<sup>445</sup> lead,<sup>446</sup> kṛṣṇaloḥa,<sup>447</sup> tīkṣṇaloḥa<sup>448</sup> (12.8–14); precious and semi-precious stones (12.15–16);<sup>449</sup> glass (kāca) (12.17);<sup>450</sup> a series of, mainly inorganic, substances: śaṅkha (shells), udadhimala, tutthaka, gairika, manohvā, haritālā, añjana in general and its varieties: srotoñjana, sauvīrāñjana and rasāñjana, followed by śilājatu, vaṃśarocanā and tugākṣīrī (12.18–25); salts in general,<sup>451</sup> and types of salt: saindhava,<sup>452</sup> sauvarcala,<sup>453</sup> vīḍa,<sup>454</sup> sāmudra,<sup>455</sup> audbhida,<sup>456</sup> kṛṣṇalavaṇa,<sup>457</sup> romaka and pāmsūthta<sup>458</sup> (12.26–32ab);<sup>459</sup> yavaśūkaja<sup>460</sup> and svarjika<sup>461</sup> (12.32cd–33); kṣāra in general (12.34);<sup>462</sup> a group of plants: haritakī (12.35–39ab),<sup>463</sup> āmalaka (12.39cd–40),<sup>464</sup> and akṣa (12.41–42ab),<sup>465</sup> forming together triphalā (12.42c–f);<sup>466</sup> more groups of substances: caturjāta, trijātaka and pañcakola (12.43–49),<sup>467</sup> mahāpañcamūla, hrasvapañcamūla, madhyamañcamūla, jīvanākhyapañcamūla, tṛṇapañcamūla,<sup>468</sup> vallīpañcamūla, and kaṇṭakākhyapañcamūla (12.50–55);<sup>469</sup> a group of spices (annagandhahara), consisting of kāravī, kuñcikā, ajājī, kavārī, dhānya, and tumburu (12.56);<sup>470</sup> a series of additional spices: bāspikā,<sup>471</sup> rājikā,<sup>472</sup> and dīpyaka<sup>473</sup> (12.57); sarṣapa (12.58ab);<sup>474</sup> hiṅgu and its best variety, which grows in Boṣkāṇa (12.59);<sup>475</sup> plants that can be used instead of hiṅgu, but of less quality: śātāhvā,<sup>476</sup> kuṣṭha,<sup>477</sup> tagara,<sup>478</sup> suradāru,<sup>479</sup> and hareṇu<sup>480</sup> (12.60); elā, elavālu, the bark of sarala, vyāghraṇakha, coraka (12.61); sairyaka (12.62ab); gokṣuraka (12.62cd); the two kinds of viṣā (12.63ab); musta (12.63cd); amṛtā (12.64); bhūnimba and parpaṭa<sup>481</sup> (12.65ab); nimba (12.65cd); mahānimba (12.66ab); guggulu (12.66cd–68); śaṅkhapuṣpī (12.69); candanā (12.70); uśīra and vālaka (12.71); madhuka (12.72); the two kinds of niśā (12.73); prapaundarikā (12.74); the three kinds of balā (12.75ab); nāgabālā (12.75cd); tāmbūla (12.76ab); pūga (12.76cd);<sup>482</sup> jātipatṛī, kaṭuphala, kaṅkolaka, and lavaṇagaka (12.77);<sup>483</sup> karpūra (12.78ab);<sup>484</sup> latākastūrikā (12.78cd);<sup>485</sup> padma (12.79ab); bakula,<sup>486</sup> punnāga, kumuda, utpala, and pāṭala<sup>487</sup> (12.79cd); campaka,<sup>488</sup> koraṇḍa,<sup>489</sup> and kiṃśuka<sup>490</sup> (12.80ab); mālatī and mallikā (12.80cd);<sup>491</sup> nāga<sup>492</sup> and sinduvāra<sup>493</sup> (12.81ab); ketaka and śīrīṣa (12.81cd); agastya (12.82);<sup>494</sup> bandhūka and yūthikā<sup>495</sup> (12.83ab); kuṅkuma (12.83cd);<sup>496</sup> avalgu<sup>497</sup> and eḍagaja<sup>498</sup> (12.83ef).

The last part of the chapter is about the unhealthy, respectively healthy effects of a sedentary life (āśyā),<sup>499</sup> travelling (adhvan),<sup>500</sup> walking (caṅkramaṇa)<sup>501</sup> (12.84–85ab), the use of footwear (pādatra)<sup>502</sup> and a parasol (chattra)<sup>503</sup> (12.85cd–86ab), frequenting windy places (pravāta) and avoiding these (12.86cd–87ab);<sup>504</sup> the effects of an easterly, westerly, southerly and northerly wind (12.87cd–90),<sup>505</sup> followed by those of sunshine (ātapa) and shadow,<sup>506</sup> darkness and moonlight (jyotsnā) (12.91).

The chapter ends with a verse stating that there is no substance devoid of medicinal

properties and that a physician can come to know them from those living in the woods (12.92).

Chapter thirteen (agryasamgrahaṇīya) gives, in three prose passages (13.2–4), long lists of items regarded as the most prominent (śreṣṭha) of the group to which they belong. These items consist of drugs of vegetable, animal and inorganic origin, activities, states of mind, etc. The actions and effects, characteristic of each group, are mentioned.

The lists, taken together, resemble the one list found in the *Carakasamhitā* (Sū.25.40). The majority of the items of Caraka recur verbally in the *Samgraha*, but their order differs considerably.

Absent from the *Samgraha* are: vamaṇa, virecana, gavedhukāṇṇa, adhyaśana, āyāsa, jala, anirveda, vaidyasamūha, yoga, vijñāna, sampratipatti, kālajñāna, avyavasāya, and asadgrahaṇa.

Extra items, absent from Caraka's list, are: tinduka,<sup>507</sup> upavāsa, vṛṣa, kaṇṭakārikā, lākṣā,<sup>508</sup> nāgabālābhyāsa,<sup>509</sup> aruṣkara, kuṭāja, sālaparṇī, raktāvaseka,<sup>510</sup> eraṇḍatāilābhyāsa,<sup>511</sup> laṣuṇa, uṣṭrikīṣira, ayorajas, guggulu (mentioned twice) (13.2), udumbara,<sup>512</sup> sudarśanāṇṇa, sūnādarśana<sup>513</sup> (13.3), āśvāsa, asaumanasya,<sup>514</sup> siddhi, ātmavattā, śāstrasahitātarka, and sadvaidyadveṣa<sup>515</sup> (13.4).

Various other slight differences between the two texts can also be noticed.

At the end of 13.4 two lists are found which enumerate the items which are the most prominent regardless of their being used singly or in combination (samudāya), and those which are the best in combinations only.

The total number of items in this chapter is said to be 155 in the concluding verse (13.5).

Chapter fourteen (śodhanādigaṇasamgraha), which has no parallel in the *Hṛdaya*, enumerates plants and other medicinal substances which are useful in purificatory (śodhana) and other therapeutic measures; the parts of the plants or the plant products to be employed are also mentioned.

The groups dealt with are: the substances to be used in emetics (vamanopayogin)<sup>516</sup> (14.2), purgatives (virecanopayogin)<sup>517</sup> (14.3), both emetics and purgatives (ubhayaṭmaka),<sup>518</sup> clysters (nirūhopayogin)<sup>519</sup> (14.4), and preparations for evacuation of the head (śirovirecanopayogin) (14.5);<sup>520</sup> substances employed for smoking in the healthy (prāyogikadhūmopayogin),<sup>521</sup> oleaginous smokes (snaihidhūmopayogin), and medicinal smokes with a sharp action (tīkṣṇadhūmopayogin) (14.6);<sup>522</sup> substances appeasing (śamana) vāta,<sup>523</sup> pitta<sup>524</sup> and kapha<sup>525</sup> (14.7).

The verse concluding this chapter in prose says that a physician, after assessing doṣa(s) and dūṣya(s) involved, can cure all diseases by help of the mentioned groups of drugs (14.8).

Chapter fifteen (mahākāṣāyasamgraha), which has no counterpart in the *Hṛdaya*, enumerates forty-five groups of ten plants from which a kāṣāya can be prepared with a particular action. The contents of this chapter derive for a very large part from Ca.Sū.

4.

The introduction, in prose (15.2), differs from that found in the *Carakasaṃhitā* (Sū. 4.2–8). The *Samgraha* states that the chapter is meant for physicians with an inactive mind (mandabuddhi); those who are intelligent (buddhimant) may use it as providing examples and devise many more kaṣāyas themselves.<sup>526</sup>

The number of kaṣāyas differs in both treatises. The *Carakasaṃhitā*, (Sū.4.3 and 8) says that five hundred kaṣāyas will be described. The classification of the groups of ten in ten larger groups of mahākaṣāyas with a total number of fifty is absent from the *Samgraha*. The names of the plants are either identical with those found in the *Carakasaṃhitā* or replaced by synonyms.

The prose of the *Carakasaṃhitā* has been rendered into verse in the *Samgraha*. The groups of ten drugs described are: jīvanīya,<sup>527</sup> brīṣhaṇīya, lekhaṇīya, bhedanīya, saṃdhāna, dipanīya (15.3–8),<sup>528</sup> balya, varṇya, kaṇṭhajanana, hṛḍya (15.9–12),<sup>529</sup> trptighna, arśoghna, kuṣṭhaghna, kaṇṭūghna, krimighna, viṣaghna (15.13–18),<sup>530</sup> stanyajanana, stanyaśuddhikara, śukrajanana, śukraśuddhikara (15.19–22),<sup>531</sup> snehopaga, svedopaga (15.23–24),<sup>532</sup> vaminigrahaṇa, tṛḍghna, hidhmānighna (15.25–27),<sup>533</sup> vidgrahaṇa, viḍviraṇa, mūtragrahaṇa, mūtravirāgakara, mūtravirecana (15.28–32),<sup>534</sup> kāśaghna, śvāśaśamana, jvaraśaśamana, śramaṇāśana (15.33–36),<sup>535</sup> dāhaghna, śītaśaśamana, udardaśaśamana, aṅgamardaghna, śūlaśaśamana (15.37–41ab),<sup>536</sup> rudhiraśaṃsthāpana, vedanāsthāpana, saṃjijñāda, garbhasthāpana, and vayalsthāpana (15.42–46).<sup>537</sup>

The chapter ends with a concluding verse (15.47).

Chapter sixteen (vividhadravyaṇasaṃgraha) agrees for a large part with the śodhanā-digaṇasaṃgraha chapter of the *Hṛdaya* (Sū.15).

A.s.Sū.16.2–15 = A.h.Sū.15.9–23.

The vīratarādigaṇa (16.16) differs from that found in the *Hṛdaya* (15.24).

A.s.Sū.16.17–24 = A.h.Sū.15.25–32.

The vatsakādigaṇa (16.25–26) differs from that found in the *Hṛdaya* (15.33–34).

A.s.Sū.16.27–37 = A.h.Sū.15.35–45.

The *Samgraha* adds a pippalyādigaṇa (16.38–39).<sup>538</sup>

A.s.Sū.16.40 is largely identical with A.h.Sū.15.46, but states that twenty-five groups have been mentioned. The *Hṛdaya* declares, in conformity with the additional groups of its chapter, that their number is thirty-three.

A.s.Sū.16.41 = A.h.Sū.15.47.

Chapter seventeen (dravyādivijñānīya) is a more elaborate version of the corresponding chapter of the *Hṛdaya* (Sū.9).

A.s.Sū.17.2 corresponds to A.h.Sū.9.1–3a.

A.s.Sū.17.3, partly corresponding to A.h.Sū.9.3b–5ab, contains additional material on the tastes; these are, with regard to their action, chedana or upaśamana; with regard to their prabhāva they are hita (salutary) or ahita (insalutary).<sup>539</sup> The lists of qualities and actions of substances with a predominance of one of the mahābhūtas (17.4–8) are longer than in the verses of the *Hṛdaya* (Sū.9.5cd–10a).<sup>540</sup>

A.s.Sū.17.9 agrees with A.h.Sū.9.10b–d.

A.s.Sū.17.10 and 11 correspond to A.h.Sū.9.11, but add an explanation of the mentioned phenomena. A.s.Sū.17.12 refers to substances of a mixed nature.

An added passage (17.13) deals with śamana as an action not restricted to substances with predominance of any particular mahābhūta;<sup>541</sup> substances with a predominance of air are grāhin,<sup>542</sup> those with a predominance of fire are dīpanapācana, those with a predominance of both air and fire are lekhaṇa, those with a predominance of earth and water are bṛmhaṇa.

The kaṭu, amla and lavaṇa tastes possess a heating (uṣṇa), the tikta, kaṣāya and madhura tastes a cooling (śīta) potency (vīrya), which increases in the mentioned order (17.14).<sup>543</sup> The tastes which are rūkṣa, snigdha, guru and laghu are listed (17.15–16).<sup>544</sup> A divergent opinion, declaring that the saltish taste has no pronounced character (sādhāraṇa) with regard to these properties, is referred to (17.16).<sup>545</sup>

The section on vīrya (17.17–23) is longer than in the *Hṛdaya* (Sū.9.12cd–19)<sup>546</sup> and discusses the concept of prabhāva.<sup>547</sup>

The section on vipāka (17.24–32) is more elaborate too than in the *Hṛdaya* (Sū.9.20–24).<sup>548</sup> Three grades are distinguished: alpatva, madhyatva and bhūyastva (17.25).<sup>549</sup> A divergent opinion on vipāka, attributed to Parāśara, is mentioned. This authority, who is quoted, asserts that the vipāka of amla remains amla, that of kaṭu remains kaṭu, while that of the remaining four tastes is madhura (17.26–28).<sup>550</sup>

The interactions of rasa, vīrya and vipāka are illustrated by a series of examples (17.29).<sup>551</sup>

A.s.Sū.17.33 = A.h.Sū.9.25.

Some additional verses (17.34–43) are concerned with rasa, vīrya and vipāka in general.

The (eight) properties of the series beginning with guru belong to the category called vīrya, the other properties are simply guṇas (17.44). The theory that the (vi)pāka of a substance is the same as its rasa<sup>552</sup> is rejected; this repudiation is underpinned by examples (17.45–51ab).

Rasa, vīrya and vipāka are not the main properties of a substance; the most important (pradhāna) one is prabhāva (17.51cd–52ab).

A.s.Sū.17.52cd–53 = A.h.Sū.9.26–27ab.

The series of examples of prabhāva is enlarged; prabhāva is said to be acintya (17.54–59).<sup>553</sup> The contrast between the actions of rasa, guṇa, vīrya and vipāka on the one hand, and of the incomprehensible prabhāva on the other, is stressed once again in the concluding verse (17.60).

The type of action called vicitrāpratya-yārabdhā in the *Hṛdaya* (Sū.9.27cd–29) is absent.

Chapter eighteen (rasabhedīya) forms for the larger part a parallel of the chapter with the same title of the *Hṛdaya* (Sū.10).<sup>554</sup>

The chapter begins with the statement that rasa (taste), at first of a watery character and indistinct (avyakta), becomes of six kinds due to its contact with the qualities of the mahābhūtas (18.2).<sup>555</sup>



The mahābhautika composition of each of the tastes is explained (18.3).<sup>556</sup> Their characteristics are enumerated (18.4).<sup>557</sup> The actions on the human organism and the effects of over-use of each taste are elaborately described: madhura (18.5–7),<sup>558</sup> amla (18.8–9),<sup>559</sup> lavaṇa (18.10–11),<sup>560</sup> tikta (18.12–13),<sup>561</sup> kaṭuka (18.14–16),<sup>562</sup> and kaṣāya (18.17–18).<sup>563</sup>

Substances and plants with predominance of one of the tastes are listed: madhura-skandha (18.19),<sup>564</sup> amlaskandha (18.20),<sup>565</sup> lavaṇaskandha (18.21),<sup>566</sup> tiktaskandha (18.22),<sup>567</sup> kaṭukaskandha (18.23),<sup>568</sup> kaṣāyaskandha (18.24);<sup>569</sup> the numbers of items are larger than those of the *Hṛdaya*.<sup>570</sup>

Exceptions to particular regularities are mentioned (18.25).<sup>571</sup>

The most prominent among the items of the six skandhas are enumerated; these are, in the proper order: ghee, āmalaka, saindhava salt, paṭolī, nāgara, and abhayā (18.26–27).<sup>572</sup>

The ānūpa and jāṅgala countries are described; the sweet taste is dominant in an ānūpa, the pungent taste in a jāṅgala country; a jāṅgala country is by far the most healthy type;<sup>573</sup> the ānūpasādhāraṇa type of country is dominated by the saltish and sour tastes, the jāṅgalasādhāraṇa country by the bitter and astringent tastes.<sup>574</sup>

The fifty-seven combinations of tastes are referred to (18.29).

These combinations are dealt with in verse; together with each of the six tastes, taken singly, the number becomes sixty-three (18.30–35ab).<sup>575</sup>

The concluding verse is identical with A.h.Sū.10.44.

Chapter nineteen (doṣādivijñānīya), corresponding to the chapter of the same title of the *Hṛdaya* (Sū.11), consists of a section in prose (19.1–10), followed by one in verse (19.11–38).

The section in prose deals with the following subjects: the roots of the body consist of doṣas, dhātus and malas;<sup>576</sup> the normal functions of vāta, pitta and kapha<sup>577</sup> (19.1), each of the seven bodily elements (dhātu),<sup>578</sup> and each of the three main types of impure matter (mala)<sup>579</sup> (19.2); the characteristic features of increased vāta, pitta and kapha<sup>580</sup> (19.3), each of the seven bodily elements, each of the three main malas, and the other malas (19.4);<sup>581</sup> the characteristic features of decrease of vāta, pitta and kapha (19.5),<sup>582</sup> each of the seven bodily elements,<sup>583</sup> each of the three main malas<sup>584</sup> (19.6), and the minor malas;<sup>585</sup> a general remark about increase and decrease; increase of malas arises from excessive retention (atisaṅga), decrease from excessive elimination (atyutsarga); decrease of malas is more painful, due to its unusual character (anaucitya), than increase (19.7).<sup>586</sup>

The contents of A.s.Sū.19.8 agree with those of A.h.Sū.11.26–29.

An additional passage (19.9) discusses the general principle that a constituent of the body increases by substances and activities possessing in large measure the same properties (samānaguṇabhūyiṣṭha), whereas decrease is the result of substances and activities with the opposite properties.<sup>587</sup>

The contents of A.s.Sū.19.10 agree with those of A.h.Sū.11.30–33.

The three verses which follow (19.11–13) develop the theme of A.h.Sū.11.34–35ab. Any bodily element (dhātu), increased or decreased, brings about the same

condition in the subsequent element of the series (19.14ab).

A.s.Sū.19.14cd–15 = A.h.Sū.11.35cd–36.

A series of additional verses are concerned with: the vāta diseases, which will be described in the chapter on these diseases of the Nidānasthāna (19.16ab); the signs indicating that pitta stays in the skin, blood, muscular tissue, fatty tissue, bones, bone marrow, and semen respectively (19.16cd–18),<sup>588</sup> and in the sirās, the snāyus, and the koṣṭha (19.19); the signs indicating that kapha stays in these structures (19.20–23); the signs relating to faeces and urine will be dealt with in their proper context (19.24ab); the signs of the malas (= doṣas), when staying in the sense organs, are upatāpa and upaghāta<sup>589</sup> (19.24cd).

The causes of the movement of the doṣas away from the koṣṭha to the śākhās are mentioned; purification of the openings of the channels (srotomukhaviśodhana) leads them to the koṣṭha again, where they remain, in an inactive state, until roused by suitable causes (19.25–29ab).

The description of ojas (19.29cd–32ab) agrees with A.h.Sū.11.37–39ab.

A.s.Sū.19.32cd–38 = A.h.Sū.11.39cd–45.

Chapter twenty (doṣabhedīya), corresponding to the chapter of the same title of the *Hṛdaya* (Sū.12), deals with: the main mahābhautika components of the doṣas: vāta is composed of air and ākāśa, pitta of fire, kapha of water and earth;<sup>590</sup> the several seats and the main seat of vāta,<sup>591</sup> pitta,<sup>592</sup> kapha;<sup>593</sup> the three doṣas brace the lower, middle and upper parts of the body like the posts (sthūṇā) of a house and are therefore also called sthūṇā;<sup>594</sup> they are designated as dhātus because they sustain (dhāraṇa) the body, as malas because they defile (malinīkaraṇa) the body and derive from the waste matter (mala) of the food, as doṣas because of their corrupting inherent nature (dūṣaṇasvabhāva)<sup>595</sup> (20.1).

The five kinds of vāta are enumerated and their seats, functions, etc., listed (20.2), followed by the five kinds of pitta (20.3) and kapha (20.4).<sup>596</sup>

The two types of vṛddhi of a doṣa are dealt with: caya and prakopa; factors leading to caya, prakopa and praśama of each doṣa are mentioned (20.5).<sup>597</sup>

A.s.Sū.20.6–7 = A.h.Sū.12.22cd–24ab.

The importance of vāta in imparting movement to the other doṣas is stressed (20.8).

The eighty vāta disorders (20.9), forty pitta disorders (20.10) and twenty kapha disorders (20.11) are enumerated.<sup>598</sup> A number of these disorders are explained:<sup>599</sup> dāha,<sup>600</sup> oṣa,<sup>601</sup> poṣa,<sup>602</sup> dava,<sup>603</sup> davathu,<sup>604</sup> vidāha,<sup>605</sup> antardāha,<sup>606</sup> dhūmaka,<sup>607</sup> amlaka,<sup>608</sup> śoṇitakleda, māṇṣakleda, carmakotha,<sup>609</sup> trpti,<sup>610</sup> tandrā, staimitya,<sup>611</sup> upalepa,<sup>612</sup> dhamanīpraticaya,<sup>613</sup> agniśaitya,<sup>614</sup> udarda<sup>615</sup> (20.12).

Udarda is defined in a verse (20.13).<sup>616</sup>

The differences between mahāvīkāras<sup>617</sup> and kṣudravīkāras<sup>618</sup> are elucidated (20.14). Diseases not described can be diagnosed by relying on the signs of the doṣas exhibited, and then treated accordingly (20.15); these signs have been described in the āyuskāmīya chapter (Sū.1). The main actions of the doṣas are listed (20.16).<sup>619</sup>

Kapilabala is quoted, who declares that a disorder of the doṣas can be diagnosed by means of inference, by taking into consideration the tastes associated with each doṣa

(20.17). Thereupon, Suśruta is quoted who states that the taste of pitta, when vidagdha, becomes sour, and that of kapha saltish under the same circumstances;<sup>620</sup> Suśruta also holds that a disorder of the doṣas can be known from the medical tradition (āgama), by perception (pratyakṣa), and by inference (anumāna) (20.18).

The sixty-two different states of imbalance of the doṣas are mentioned, classified into groups;<sup>621</sup> the addition of the balanced state makes the number into sixty-three (20.19–24ab).<sup>622</sup> The symptoms of six imbalances, in which one doṣa is normal, one increased and one decreased, are described in more detail (20.24cd–31).<sup>623</sup> The remaining disorders should be diagnosed by the physician's own efforts (20.32), although, allowing for the combinations of doṣic imbalances with disturbances of the seven dhātus, their number grows exceedingly (20.33).<sup>624</sup>

Chapter twenty-one (doṣopakramaṇīya) corresponds to the chapter of the same title (Sū.13) of the *Hṛdaya*.

The general treatment of vāta, pitta and kapha disorders (21.1–3)<sup>625</sup> is dealt with more elaborately than in the *Hṛdaya* (Sū.13.1–12).

A.s.Sū.21.4–5 = A.h.Sū.13.13–14.

Verses on the relationships between the doṣas and the tastes, the doṣas and the seasons, the doṣas and diet, are added (21.6–13).

A.s.Sū.21.14 = A.h.Sū.13.15.

Another series of additional verses deal with the order of treatment of excited doṣas when they are of equal strength. Parāśara's opinion on this subject is quoted first (21.15–17), followed by another view (21.18–21), Suśruta's position (21.22–25), and one more stance (21.26–28).

A.s.Sū.21.29 = A.h.Sū.13.16.

The interactions of the doṣas are declared not to result in reduction of their effects, in spite of their contrary properties and actions (21.30–32).

The characteristics are described of each doṣa when loaded with āma and when devoid of it (21.33–35).

A.s.Sū.21.36–42 = A.h.Sū.13.25–31.

A.s.Sū.21.43 corresponds to A.h.Sū.13.32ab.

A.s.Sū.21.44 = A.h.Sū.13.32cd–33ab.

The subjects dealt with in the last part of A.h.Sū.13 are absent from this chapter of the *Saṃgraha*.<sup>626</sup>

Chapter twenty-two (rogabhedīya) is concerned with the classification of diseases. It is in prose, apart from a group of verses at the end (22.12–18).

Seven categories of diseases (roga) are distinguished: saḥaja, garbhaja, jātaja, pī-ḍaja, kālaja, prabhāva, and svabhāva.<sup>627</sup>

Each of these is made up of two subcategories. Saḥaja diseases, such as kuṣṭha, arśas and meha, arise from corrupted semen of the father or corrupted ārtava of the mother.<sup>628</sup> Garbhaja diseases arise from a wrong diet of the expectant mother (anarasaja) or neglect of her longings during pregnancy (dauhrḍavimānana); examples are klaibya, pāṅgulya, paṅgalya and kilāsa.<sup>629</sup> Jātaja diseases arise from one's own

wrong conduct, consisting of either saṃtarpaṇa or apatarpaṇa.<sup>630</sup> Prāṇa diseases<sup>631</sup> are either bodily or mental; the bodily subcategory<sup>632</sup> is caused by wounds (kṣata), fractures (bhaṅga), blows (prahāra), etc., the mental subcategory by anger, grief, fear, etc. Kālaṇḍ diseases arise from seasonal irregularities (vyāpanṇa) or neglect of the rules of seasonal regimen (asaṃprakṣaṇa).<sup>633</sup> Prabhāva diseases arise from offences against gods and gurus, curses, ātharvaṇa (practices),<sup>634</sup> etc., or from piśācas, etc.<sup>635</sup> Svabhāva diseases, such as hunger, thirst, etc., arise at a proper (kāla) or improper time (akāla).<sup>636</sup>

All these diseases arise from bad acts committed during the present life (pratyu-pannakarmaja), a former life (pūrvakarmaja), or a combination of both<sup>637</sup> (22.1). The general ways in which these diseases are alleviated are described. Some authorities add a category, called parābhisamkāra ja, that arises from acts of other persons, unfriendly disposed;<sup>638</sup> these diseases are not alleviated in the usual ways.<sup>639</sup> Diseases caused by the doṣas are of seven kinds (22.2).<sup>640</sup>

The importance of āyurveda and of the precepts of physicians is stressed and defended against objections relating to spontaneous cures, the influence of karman, etc. Diseases are classified as slight (mr̥du), moderate (madhya), and serious (atimātra). They are also of four types, i.e., easily curable, etc., as formerly explained. All diseases are either nija or āgantū (22.3).

The characteristic features of nija and āgantū diseases are described. Disease in general is discussed (22.4).

The doṣas are the only causes of all diseases. Several similes are employed in illustrating this maxim (22.5).

The three causes (nimitta) of disorders of the doṣas consist of asātmendriyārthasaṃyoga, prajāparādha and pariṇāma, each subdivided into atiyoga, ayoga and mithyāyoga; these concepts are elaborated, to begin with asātmendriyārthasaṃyoga, in particular the mithyāyoga type<sup>641</sup> (22.6).<sup>642</sup> Subsequently, prajāparādha<sup>643</sup> and pariṇāma<sup>644</sup> are discussed (22.7).<sup>645</sup>

General conditions, relating to the mentioned three types of yoga and other factors, which lead to the absence of disease, to slight disorders, or to the appearance of serious disorders respectively, are discussed (22.8).<sup>646</sup>

The three pathways (mārga) of diseases constitute the next subject (22.9).<sup>647</sup>

Diseases are either independent (svapradhāna, svatantra, anubandhya) or subordinate (anyaparivāra, anubandha); the subordinate ones, which either precede (purogāmin) or follow upon (anugāmin) another disease are thus divided into prodromes (pūrvārūpa) and complications (upadrava);<sup>648</sup> their characteristic features and rules for their treatment<sup>649</sup> are formulated; diseases may act as the causes of other diseases (22.10).<sup>650</sup>

The examination of a patient should be carried out according to the tradition (āgama), by means of perception (pratyakṣa), and by means of inference (anumāna); the aspects to be examined in these three ways are enumerated (22.11).<sup>651</sup> The importance of the knowledge gathered is stressed in a verse (22.12).

The next three verses are about major and minor ailments (guruvyādhi and laghuvyādhi) (22.13–15).<sup>652</sup>

The concluding verses emphasize the necessity of a comprehensive knowledge of the medical science for the practising physician (22.16–17).<sup>653</sup>

Chapter twenty-three (bheṣajāvacaraṇīya) has no counterpart in the *Hṛdaya*.

A long passage in prose (23.2) gives a detailed list of questions a physician should ask himself before beginning to treat a particular patient. The same subject is pursued in the second passage: the physician should duly consider whether a disease is brought about by doṣas which are viṣamavikṛtisamaveta, he has to draw conclusions about the avayava-, samudāya-, vyādhi-, auśadhaprabhāva, etc. (23.3).<sup>654</sup> Having given careful thought to these issues, he may choose a suitable medicine (23.4), whether śodhana or śamana (23.5); this choice is dependent on general characteristics of the patient (23.6). The type of medicine and its properties should be thought over (23.7), the time of its administration (23.8), its source, time of collection, etc. (23.9–10), the suitability of the season, etc. (23.11).

The next section discusses the eleven proper times for the administration of a medicine, dependent on the stage of the disease: abhakta, prāgbhakta, madhyabhakta, adbhakta, sabhakta, antarabhakta, sāmudga, muhurmuḥur, sagraśa, grāsāntara, and niśi (at night) (23.12–22).<sup>655</sup>

Some verses follow which deal with the danger of recurrence of a disease just treated and the means to avoid this (23.23–28). The next series of verses are about the proper periods of the year suitable to the elimination of accumulated doṣas (23.29–30).<sup>656</sup>

A.s.Sū.23.31 = A.h.Sū.13.36.

One verse (23.32) declares that a particular course of treatment should be continued for at least a week before changing it; rash changes are warned against.

The requirements for medicines for royal use are specified (23.33–34).

A medicine originating from the country inhabited by the patient or one with similar properties is always the best choice (23.35).

Any medicine requires a careful preparation and administration (23.36).

Chapter twenty-four (dvividhopakramaṇīya) agrees for a large part with the chapter of the same title of the *Hṛdaya* (Sū.14).

A.s.Sū.24.1–17 = A.h.Sū.14.1–19.

A series of additional verses deal with the pathogenesis of obesity (sthaulya) (24.18–24), the diseases that obese persons are prone to (24.25),<sup>657</sup> and the treatment of very obese (atisthūla) patients (24.26–29ab).<sup>658</sup>

A.s.Sū.24.29cd–31ab = A.h.Sū.14.22cd–24.

The treatment of obesity and the disorders in its wake is more elaborately described than in the *Hṛdaya*; some verses are added on this subject (24.31cd–36).

A.s.Sū.24.37–40ab = A.h.Sū.14.25–28.

An ardhāśloka (24.40cd) is added.

A.s.Sū.24.41–43ab = A.h.Sū.14.29–31ab.

The effects of excessive leanness (atikāśya) and the disorders resulting from it are more elaborately described (24.43cd–45ab) than in the *Hṛdaya*.

A.s.Sū.24.45cd–46 = A.h.Sū.14.3.1cd–33ab.

The characteristics of an excessively lean person are enumerated (24.47) and the groups of drugs beneficial to him (24.48ab).

A.s.Sū.24.48cd–49ab = A.h.Sū.14.34.

Verses added (24.49cd–51ab) are about the treatment of other disorders caused by a deficient intake of food (laṅghana).

A.s.Sū.24.51 = A.h.Sū.14.35.

Dietary prescriptions are given for persons who have excessively slimmed (24.52–57).<sup>659</sup>

A.s.Sū.24.58 = A.h.Sū.14.36.

Constitutional obesity and leanness are mentioned; the already described measures are applicable in these cases (24.59).

Restorative (bṛṇhṇaṇa) and slimming measures (laṅghana) should be employed in their due measure (24.60–61ab).

A.s.Sū.24.61c–f = A.h.Sū.14.37.

Chapter twenty-five (snehavidhi) corresponds largely to the chapter of the same title of the *Hṛdaya* (Sū.16).

A.s.Sū.25.1–6 = A.h.Sū.16.1–4.

An additional ardhśloka enumerates as sources of fatty or oily substances (sneha): dadhi, milk, meat, bones, fruits, and woods (25.7ab).<sup>660</sup>

A.s.Sū.25.7–13ab = A.h.Sū.16.5–12ab.

A series of verses (25.13cd–16ab) describe the proper and improper times for oleation.<sup>661</sup>

A.s.Sū.25.16cd–20ab = A.h.Sū.16.14cd–18.

Additional verses are about indications for a small, moderate and large dose of sneha (25.20cd–25).<sup>662</sup>

A.s.Sū.25.26–28 = A.h.Sū.16.19–21.

The effects of a sneha used before, during and after a meal are described (25.29–30),<sup>663</sup> followed by the substances to be added to a sneha in disorders caused by vāta, pitta and kapha respectively (25.31).<sup>664</sup>

A.s.Sū.25.32 = A.h.Sū.16.23.

The signs indicating that the sneha drunk by the patient is being digested, and, finally, digested (25.33–35ab).<sup>665</sup>

A.s.Sū.25.35cd–40ab = A.h.Sū.16.24–29ab.

A mild medicine ought to be prescribed before the drinking of a sneha (25.40c–f).<sup>666</sup>

A.s.Sū.25.41 = A.h.Sū.16.29cd–30ab.

The effects of proper and excessive oleation are discussed (25.42–43).

The signs of proper, improper and excessive oleation are described in more detail (25.44–46ab) than in the *Hṛdaya*.<sup>667</sup>

A.s.Sū.25.46cd–47ab = A.h.Sū.16.32–33ab.

The list of disorders caused by a faulty application of sneha is longer (24.47cd–48ab) than in the *Hṛdaya*.

A.s.Sū.25.48cd–50ab = A.h.Sū.16.33cd–35.

Complications of sneha and their treatment are discussed (25.50cd–55ab).<sup>668</sup> The drinking of pure ghee in a disorder by pitta, in particular in its sāma stage, is said to be life-threatening (25.55c–f).<sup>669</sup>

A.s.Sū.25.56–57ab = A.h.Sū.16.36–37ab.

An arhaśloka (25.57cd) is added, explaining the last word of 25.57b.

A.s.Sū.25.58–60 = A.h.Sū.16.37cd–40ab.

Additional verses (25.61–69) give more prescriptions for sadyaḥsneha.<sup>670</sup>

A.s.Sū.25.70–72 = A.h.Sū.16.43cd–46.

Chapter twenty-six (svedavidhi) contains additional material when compared with the corresponding chapter (Sū.17) of the *Hṛdaya*.

The same four types of (agni)sveda are distinguished: tāpa, upanāha-, drava- and ūśmasveda (26.2). The descriptions of the first three are somewhat more elaborate (26.2–4). Eight kinds of ūśmasveda are distinguished and described:<sup>671</sup> piṇḍa- or saṃkarakasveda (26.5),<sup>672</sup> saṃstarasveda (26.6),<sup>673</sup> nāḍisveda (26.7),<sup>674</sup> ghanāśmasveda (26.8),<sup>675</sup> kumbhisveda (26.9),<sup>676</sup> kūpasveda (26.10),<sup>677</sup> kuṭhisveda (26.11),<sup>678</sup> and jentākasveda (26.12).<sup>679</sup>

Tāpa- and ūśmasveda are indicated in disorders by kapha, upanāha in those by vāta, dravasveda in disorders where pitta is slightly involved (26.13).

Two types of sveda without making use of fire (anāgneya) are described, along with their indications (26.14).<sup>680</sup>

A.s.Sū.26.15–17 = A.h.Sū.17.12–14.

The ways in which the eyes and the heart should be protected during sveda is dealt with (26.18–19ab).<sup>681</sup>

A.s.Sū.26.19cd–31 = A.h.Sū.17.15–27.

Rules for after-treatment are formulated (26.32); the beneficial effects of sveda are described (26.33).

A.s.Sū.26.34 = A.h.Sū.17.29.

Chapter twenty-seven (vamanavirecanavidhi) corresponds to the chapter of the same title (Sū.18) of the *Hṛdaya*.

Vamana (emesis) and virecana (purgation, or a combination of emesis and purgation) are defined (27.2).<sup>682</sup> The properties of emetic and purgative substances are enumerated and their actions explained (27.3).<sup>683</sup> The indications, with regard to the doṣas, for emesis and purgation are given (27.4).<sup>684</sup>

The diseases to be treated with emetics are listed (27.5),<sup>685</sup> followed by the contraindications for emesis and the bad effects resulting from not observing these rules (27.6).<sup>686</sup> The groups of patients among those mentioned as not suitable for emetic procedures, and who may not be submitted to the other methods yet to be described, up to dhūma, are listed; patients suffering from ajīṛṇa or a recent fever may be treated with emetics only (27.7).<sup>687</sup>

The diseases suitable to treatment with purgatives are enumerated (27.8),<sup>688</sup> followed by those unsuitable and the bad effects of transgressing these rules (27.9).<sup>689</sup>

The procedure of the treatment with emetics is described (27.10–14).<sup>690</sup>

The properties emetics should possess in disorders by kapha, pitta and vāta are dealt with, and the signs indicating that the aim of the treatment has been reached (27.15).<sup>691</sup> Some special rules are formulated (27.16).<sup>692</sup>

The signs characteristic of deficient (27.17), adequate (27.18) and excessive application (27.19) are dealt with,<sup>693</sup> followed by the treatment to be employed after emesis (27.20–21).<sup>694</sup>

The verses which follow upon the preceding passages in prose (27.22–25) are also found in the *Hṛdaya* (Sū.18.29–31).

The way in which to prepare a course of purgative treatment, after a successful course with emetics, is described (27.26).<sup>695</sup> The necessity of emesis, before proceeding to purgation, is explained (27.27), and the reasons are given for the rule that an emetic works best when administered at a period of time connected with kapha (27.28).

The three types of digestive system to be found in patients are discussed: mṛdu-, krūra- and madhyamakṣṭha (27.29).<sup>696</sup> The types of purgative to be employed in disorders mainly due to pitta, kapha or vāta are mentioned.<sup>697</sup> The treatment after administration of a purgative is described (27.30).

The measures to be employed when the treatment is not or not sufficiently successful are discussed (27.31–32),<sup>698</sup> followed by the special treatment required in those who habitually restrain their natural urges, such as women, court officials, and merchants, and in those with similar unhealthy types of behaviour (27.33–34).

The signs indicating deficient, proper and excessive treatment with purgatives are described (27.35).<sup>699</sup> The regimen after proper purgation is the same as after emesis, but medicinal smoking is not allowed (27.36).

Emetics may be given after digestion of the meal, purgatives after digestion of kapha (27.37ab).

A.s.Sū.27.37cd–41 = A.h.Sū.18.44–48ab.

The treatment to be employed when emetics lead to purgation and purgatives to vomiting (27.42).

A.s.Sū.27.43–53 = A.h.Sū.18.48cd–60ab.

The characteristics of a purgative or nirūha with a tīkṣṇa action are described (27.54–55), followed by those of drugs in general which are tīkṣṇa; drugs with the opposite effects are manda in their actions (27.56–57).

Tīkṣṇa, madhya and mṛdu (= manda) medicines are required in tīkṣṇa, madhya and mṛdu diseases respectively (27.58).

Patients who are able to digest emetics and purgatives, and thus do not respond to them, should not be treated with these types of drugs (27.59–60).

A.s.Sū.27.61 = A.h.Sū.18.60.

Chapter twenty-eight (bastividhi) is more elaborate than the corresponding chapter (Sū. 19) of the *Hṛdaya*.

The importance of basti as a therapeutic method against vāta disorders,<sup>700</sup> and the predominant position of vāta as the leader (netar) among the doṣas, are emphasized



(28.2–4). The categories of patients to whom basti is beneficial are enumerated (28.5).

In the same way as in the *Hṛdaya* (Sū.19.1d–2ab), three main types of basti are distinguished: āsthāpana, anuvāsana, and uttarabasti. The varieties of āsthāpana mentioned are: utklesāna,<sup>701</sup> saṁśodhana,<sup>702</sup> saṁśamana,<sup>703</sup> lekhaṇa,<sup>704</sup> bṛṁhaṇa,<sup>705</sup> vājikaraṇa,<sup>706</sup> picchābasti,<sup>707</sup> mādhubutailika,<sup>708</sup> etc.; synonyms of mādhubutailika basti are yāpana,<sup>709</sup> yuktaratha,<sup>710</sup> doṣahara,<sup>711</sup> and snigdhabasti<sup>712</sup> (28.6). The etymologies of āsthāpana and its synonym nirūha are discussed (28.7). Anuvāsana is of four varieties when the four types of fatty substance (sneha) that may be used in its preparation are taken into consideration. A variety of anuvāsana is called mātṛābasti (28.8).<sup>713</sup> This mātṛābasti can be used in the same way as the mādhubutailika variety; the etymology of anuvāsana is discussed (28.9). An uttarabasti is śodhana, like a snehānuvāsana, but others are of the opinion that it resembles a nirūha (28.10).

The lists of disorders suitable to treatment with āsthāpana (28.1) and unsuitable to it (28.12) are longer than in the *Hṛdaya* (Sū.19.2c–3 and 4–6ab). Some explanations follow (28.13). The indications for anuvāsana are identical with those for āsthāpana; categories of patients to whom it is particularly useful are mentioned separately; the same applies to the contra-indications; those patients in whom anuvāsana should be avoided in particular are separately mentioned (28.14).<sup>714</sup>

A series of verses (28.15–20ab) give a detailed explanation of the rule that an anuvāsana has to be administered on an empty stomach, but a nirūha after a meal.

Contra-indications for snehabasti are formulated (28.20).

The materials for the tube, its dimensions in various age groups, the karpikās, etc., are described (28.21),<sup>715</sup> followed by the materials for the pouch and the way to fasten it to the tube (28.22).<sup>716</sup> Substitutes when the proper materials for the pouch are unavailable are enumerated (28.23).<sup>717</sup>

The doses of an āsthāpana for various age groups are mentioned.<sup>718</sup> Some authorities are of the opinion that the maximum dose is not twelve, but only eight prasṛta (28.24). The proper dose for a mādhubutailika enema is one quarter less than that for an āsthāpana, that for an anuvāsana is one quarter of that for an āsthāpana<sup>719</sup> (28.25).

General rules for the application of an āsthāpana, and for the procedures that should precede it, are formulated (28.26).<sup>720</sup>

The opinion of the Dhanvantarīyas is quoted in verse: a clyster should not be applied at night, except under particular circumstances (28.27–29ab).

The technique of administering a clyster is elaborately described (28.29–31).<sup>721</sup> A divergent opinion declaring that the pouch should be pressed during a period of thirty mātṛā is referred to (28.31). The after-treatment is then dealt with (28.32).<sup>722</sup>

The application of an anuvāsana should be repeated on the third or fifth day, or, in particular cases, daily (28.33).<sup>723</sup>

The preparation of the medicine ought to be accompanied by ritual acts, honouring a long series of deities and sages: Nātha Āryāvalokita, Āryatārā, Ātmabhū (= Brahṁā), Dhātār, the Aśvins, Indra, Ātreya, the seven sages, Kāśīrāja, Videhapatī, etc., Agniveśa and the other authors of treatises (28.34).<sup>724</sup>

The preparation of a nirūha is described (28.35),<sup>725</sup> followed by the way to administer it properly (28.36).<sup>726</sup> The bad effects of faulty ways of administration are dealt

with in verse (28.37–39).<sup>727</sup>

A.s.Sū.28.40–42 = A.h.Sū.19.43d–46ab.

The correct procedure after administering a nirūha is discussed (28.43),<sup>728</sup> followed by what to do if it comes out spontaneously; in that case, a second, third, fourth enema, or even a larger number, are required until the proper effect is reached (28.44).<sup>729</sup>

The first nirūha draws out vāta, the second pitta, the third kapha (28.45).

The effects of deficient, proper and excessive treatment are the same as those described in the treatment with purgatives. The treatment after proper administration of a nirūha is discussed (28.46),<sup>730</sup> and the treatment with an anuvāsana of patients suffering from vāta; the signs pointing to deficient, proper and excessive administration of such an anuvāsana are like those after drinking a sneha (28.47).<sup>731</sup> The signs after proper treatment are described (28.48).<sup>732</sup>

A.s.Sū.28.49ab is a variant of A.h.Sū.19.54cd.

A.s.Sū.28.49cd–54ab = A.h.Sū.19.55–59.

A.s.Sū.28.54c–f agrees with A.h.Sū.19.60, but identifies the anonymous authority of the *Hṛdaya* as Caraka.

A.s.Sū.28.55–61 = A.h.Sū.19.61–67ab.

The marvellous effects of eighteen series of eighteen enemas are described (28.62–63).<sup>733</sup>

A.s.Sū.28.64–80 = A.h.Sū.19.70–84.<sup>734</sup>

Chapter twenty-nine (nasyavidhi) corresponds to the chapter of the same title (Sū.20) of the *Hṛdaya*.

The way of action of errhines (nāvana, nastahkarman) is explained (29.2).<sup>735</sup>

The indications for the virecana, bṛṃhaṇa and śamana types of errhine are described, together with specifications regarding their preparation (29.3–6).<sup>736</sup>

Several types of nasya are discussed, their basic differences, and the materials to be employed in their preparation; the types of nasya are: marśa, pratimarśa, avapīḍa, pradhamaṇa, and śirovirecana (29.7).<sup>737</sup>

The preparation of two varieties of aṇutaila is described (29.8–9).<sup>738</sup>

Contra-indications for the administration of an errhine are given; the disorders are described which would result from neglect of these rules (29.10).<sup>739</sup> Alternative treatments are dealt with (29.11).

The doses of a marśa and the way to administer a pradhamaṇa are described (29.12).<sup>740</sup> The general procedure for the application of an errhine forms the next subject (29.13).<sup>741</sup> It is followed by the proper periods of day and night for the administration; these depend on the doṣa involved and the season (29.14).<sup>742</sup>

Faultive ways of administration and their injurious consequences are dealt with (29.15).

Next, the after-treatment is described, the repetition of the administration of the errhine, the intervals, the diet to be observed, etc. (29.16),<sup>743</sup> the results of proper treatment, deficient and excessive treatment, etc. (29.17).<sup>744</sup>

The indications and contra-indications for a pratimarśa and the fifteen occasions

on which it is useful<sup>745</sup> are discussed (29.18).<sup>746</sup>

The last portion of the chapter is in verse (29.19–25).

The proper dose of a pratimarśa is described (29.19–20ab).

A.s.Sū.29.20cd–25 = A.h.Sū.20.30cd–36.

Chapter thirty (dhūmapānavidhi) corresponds to the chapter of the same title (Sū.21) of the *Hṛdaya*

The indications<sup>747</sup> and general actions of medicinal smoking (dhūmapāna) are mentioned first (30.2).<sup>748</sup> Two series of three types are distinguished: śamana, bṛ-ṛhaṇa and śodhana, kāsaghna, vāmana and vraṇadhūpana; śamana is also known as prāyogika and madhyama, bṛṛhaṇa as snehana and mṛdu, śodhana as virecana and tīkṣṇa (30.3).<sup>749</sup> The contraindications are discussed (30.4).<sup>750</sup> followed by the disorders due to improper application and their treatment (30.5–6).<sup>751</sup> The prāyogika type is useful on eight, the mṛdu type on eleven, the tīkṣṇa type on five occasions (30.7).<sup>752</sup>

The smoking apparatus is described and its general dimensions; the divergent dimensions for kāsaghna, vāmana and vraṇadhūpana aims are mentioned (30.8);<sup>753</sup> substitute materials for the tube used for kāsaghna smoking, etc., are enumerated (30.9).

The preparation of the wick (varti) is dealt with (30.10),<sup>754</sup> followed by the proper technique of inhaling medicinal smoke (30.11).<sup>755</sup>

The rules for the prāyogika, snaiḥika and tīkṣṇa types are formulated (30.12–14),<sup>756</sup> followed by those for the remaining three types (30.15–16).<sup>757</sup>

The signs of deficient treatment are mentioned (30.17), followed, in verse, by those of successful application (30.18–19).<sup>758</sup>

Chapter thirty-one (gaṇḍūṣādividhi)<sup>759</sup> corresponds to the chapter of the same title (Sū. 22) of the *Hṛdaya*.

A.s.Sū.31.2 agrees with A.h.Sū.22.1–2a in distinguishing four kinds of gaṇḍūṣa; it adds three synonyms of the śamana type: stambhana, prasādana, nirvāpaṇa. The materials to be used in the preparation of these types are dealt with next (31.3).<sup>760</sup>

A.s.Sū.31.4–8 = A.h.Sū.22.5–9.

The proper way of taking a gaṇḍūṣa is described,<sup>761</sup> its three dosages, and the difference between a gaṇḍūṣa and a kavala (31.9). This difference is expressed again in a verse (31.10).<sup>762</sup>

The preparatory treatment, the time during which the fluid should be held within the oral cavity,<sup>763</sup> the number of times the procedure should be repeated, and the signs of proper, deficient and excessive treatment are dealt with (31.11).<sup>764</sup>

The three kinds of pratisāraṇa are mentioned, the materials to be employed, indications for its use, and the disorders arising from over-application (31.12).<sup>765</sup>

The next subjects are mukhālepa, its three varieties, its dosages, things to be avoided during treatment, the way to apply the ālepa and remove it again, the after-treatment (31.13),<sup>766</sup> contra-indications, and beneficial effects of correct application (31.14).<sup>767</sup>

The four kinds of mūrdhataila and their relative merits are dealt with (31.15).<sup>768</sup>

followed by the technique of applying a śirobasti (31.16).<sup>769</sup>

A.s.Sū.31.17–18 = A.h.Sū.22.24cd–26.

A.s.Sū.31.19–21 = A.h.Sū.22.34, 32, 33.

Chapter thirty-two (āścyotanāñjanavidhi) corresponds to the chapter of the same title (Sū.23) of the *Hṛdaya*.

Āścyotana (the application of eyedrops) is the foremost way of treatment of eye diseases;<sup>770</sup> the application of a paste (ālepana), called biḍāla, is indicated in not yet fully developed eye diseases (32.2). The technique, proper place and time, dose, etc., and the signs of improper application are discussed (32.3).<sup>771</sup> The way in which an āścyotana brings about the desired effect is then dealt with (32.4).<sup>772</sup> After successful administration of an āścyotana, an añjana (collyrium) should be applied (32.5).<sup>773</sup>

Four types of añjana are distinguished: lekhana, ropāṇa, snehana and prasādana.<sup>774</sup> The materials to be used in each of these types are specified and the indications listed (32.6–10).<sup>775</sup> The snehana type is prepared with the fat of snakes, etc., and employed in timira by vāta, etc. (32.8). The prasādana type is called pratyañjana when used to counteract irritation of the eyes by a tīkṣṇa añjana (32.10).<sup>776</sup> Six kinds of añjana are distinguished according to the taste predominantly present.<sup>777</sup> Añjanas are also either tīkṣṇa or mṛdu (32.10). An añjana may be prepared as a piṇḍa, rasakriyā or cūrṇa; the relative merits of these varieties and their indications, together with the quantities to be applied, are described (32.11).<sup>778</sup>

The material for the containers to store añjanas is mentioned and said to depend on the predominant taste of the preparation; the material for the grinding slab and its dimensions are also specified (32.12).<sup>779</sup>

Five kinds of śālākā for the application of an añjana are described (32.13).<sup>780</sup>

The suitable periods of time and the frequency of application are specified (32.14).<sup>781</sup>

An añjana should be applied to the diseased eye first, afterwards to the other eye; añjanas which are too cold, etc., hurt the eye and make the disease more serious<sup>782</sup> (32.15).

The contra-indications are listed and the disorders which would follow on not keeping to these rules (32.16).<sup>783</sup>

The technique of applying an añjana is described (32.17),<sup>784</sup> followed by the after-treatment (32.18–20).<sup>785</sup> The special treatment after a tīkṣṇa añjana is discussed, and the problems that may arise after incorrect application (32.21).<sup>786</sup>

The physician should also turn his thoughts to the healing process, etc. (32.22).

Chapter thirty-three (tarpaṇaṇaṭapākavidhi) corresponds to the chapter of the same title (Sū.24) of the *Hṛdaya*.

The indications, contra-indications and technique of applying tarpaṇa to the eyes is described (24.2–5).<sup>787</sup> After tarpaṇa, a ṇaṭapāka should be applied. This preparation is of three types: snehana, lekhana and prasādana (24.6); the materials to be used in preparing them and their indications are mentioned (24.7–9),<sup>788</sup> followed by the technique of preparing and administering a ṇaṭapāka (24.10–11).<sup>789</sup>

The concluding verse says that disorders arising from incorrect application (vidhi-vibhramśa) of seka, añjana, tarpaṇa and puṣpāka should be treated in a suitable way (24.12).

Chapter thirty-four (yantraśāstravidhi) corresponds to chapter 25 (yantravidhi) and part of chapter 26 (śāstravidhi) of the Sūtrasthāna of the *Hṛdaya*.<sup>790</sup>

Six groups of yantras are enumerated (34.2).<sup>791</sup> Others state that the number of yantras is 101,<sup>792</sup> but in this treatise six groups will be described, called svastika, saṃdamśa, tāla, nāḍī, śalākā, and anuyantra (34.3).

The characteristics and uses are described of various types of svastika (34.4),<sup>793</sup> three kinds of saṃdamśa (34.5),<sup>794</sup> the mucutī (34.6),<sup>795</sup> two kinds of tālayantra (34.7),<sup>796</sup> various kinds of nāḍīyantra (34.8–9),<sup>797</sup> three types of arśoyantra (the third type is the śamīyantra) (34.10),<sup>798</sup> the bhagandarayantra (34.10),<sup>799</sup> the ghrāṇārśaḥ- and ghrāṇārbudayantra (34.10),<sup>800</sup> the aṅgulītrāṇaka (34.11),<sup>801</sup> yonivraṇādarśanayantra (34.12),<sup>802</sup> nāḍīvraṇaprakṣālanābhyañjanayantra (34.12),<sup>803</sup> ubhayatodvārānāḍīyantra and picchanāḍī (34.12),<sup>804</sup> various other nāḍīyantras (34.12),<sup>805</sup> śṛṅga, alābu and ghaṭī (34.13),<sup>806</sup> various types of śalākā: two śalākās with a gaṇḍūpadamukha, two with a masūradalamukha,<sup>807</sup> six of the śaṅku type (two with a ahiphaṇāmukha, two with a śarapuṅkhamukha, two with a baḍīśamukha),<sup>808</sup> the garbhaśaṅku, agravakraśaṅku, and dantanirghātana (34.14),<sup>809</sup> various uṣṇīṣaśalākās,<sup>810</sup> three jāmbavoṣṭhas (34.15),<sup>811</sup> various other types of śalākā (34.16),<sup>812</sup> and a series of anuyantras (34.17)<sup>813</sup> which are to be made use of according to the purposes they are suitable to (34.18).<sup>814</sup>

The twenty-four therapeutic uses of yantras are listed (34.19).<sup>815</sup>

A.s.Śū.34.20 = A.h.Śū.25.42.

The next section is concerned with the śāstras. Twenty-six of these instruments are enumerated: dantalekhana, maṇḍalāgra, vṛddhipattra, utpalapattra, adhyardhadhāra, mudrikā,<sup>816</sup> kartarī, sarpavaktra,<sup>817</sup> karapattra, kuśapattra,<sup>818</sup> āṭīmukha,<sup>819</sup> antarmukha,<sup>820</sup> śārārīmukha,<sup>821</sup> trikūrca, kuṭhārikā, vrīhimukha, śalākā, vetasapattra,<sup>822</sup> āra, karṇavyadhana,<sup>823</sup> sūcī, sūcīkūrca,<sup>824</sup> khaja, eṣaṇī, baḍīśa, and nakhaśāstra;<sup>825</sup> the requirements for these instruments are formulated<sup>826</sup> (34.21). The śāstras employed in the twelve main therapeutic actions are specified (34.22).<sup>827</sup>

A large part of these instruments and their functions are described: dantalekhana,<sup>828</sup> maṇḍalāgra<sup>829</sup> (34.23), vṛddhipattra (34.24),<sup>830</sup> aṅgulīśāstraka (34.25),<sup>831</sup> kartarī,<sup>832</sup> sarpavaktra,<sup>833</sup> karapattra,<sup>834</sup> kuśapattra,<sup>835</sup> āṭīmukha,<sup>836</sup> antarmukha<sup>837</sup> (34.26), kuṭhārikā,<sup>838</sup> vrīhimukha,<sup>839</sup> śalākā<sup>840</sup> (34.27), āra,<sup>841</sup> karṇavyadhana<sup>842</sup> (34.28), three kinds of sūcī (34.29),<sup>843</sup> sūcīkūrca,<sup>844</sup> khaja,<sup>845</sup> two kinds of eṣaṇī,<sup>846</sup> baḍīśa,<sup>847</sup> and nakhaśāstra<sup>848</sup> (34.30).

Not described are the utpalapattra,<sup>849</sup> adhyardhadhāra,<sup>850</sup> śārārīmukha,<sup>851</sup> trikūrca,<sup>852</sup> and vetasapattra.<sup>853</sup>

The anuśāstras are enumerated;<sup>854</sup> the hand is the most important among these (34.31).

The eight defects of blunt (yantradoṣa) and sharp instruments (śāstradoṣa) are listed;<sup>855</sup> the karapattra has a special position<sup>856</sup> (34.32).

Three fluids for tempering steel are mentioned, followed by the uses of cutting

instruments tempered in these fluids (34.33).<sup>857</sup> Requirements for the edge (dhārā) of groups of sharp instruments for particular purposes are formulated (34.34).<sup>858</sup> The ways of handling surgical instruments are described (34.35),<sup>859</sup> the whetstone,<sup>860</sup> and a piece of sālmālī wood for smoothening (dhārāsarpsthāpana)<sup>861</sup> (34.36).

The importance of acquiring practical skills is emphasized; suitable objects for training are mentioned (34.37).<sup>862</sup>

Dissection is dealt with (34.38).<sup>863</sup>

A physician's knowledge derives from a combination of what (the tradition of) his science teaches and what has been observed with his own eyes (34.39).<sup>864</sup>

The chapter ends with verses describing the case (kośa) for surgical instruments (34.40–41 = A.h.Sū.26.33–34).

Chapter thirty-five (jalaukovidhi) deals with the same subjects as the last part of A.h. Sū.26.

Indications for drawing blood by means of leeches (jalaukas) are given (35.2).<sup>865</sup>

Leeches are of two kinds: poisonous and non-poisonous. The places of origin and external characteristics of poisonous leeches are described, together with the disorders their bite may give rise to and the treatment of these disorders;<sup>866</sup> the places of origin and characteristics of non-poisonous leeches are dealt with next (35.3).<sup>867</sup>

The maximum length of leeches is eighteen aṅgula. Those measuring four to six aṅgula are fit for human use; the longer ones are employed in veterinary medicine. The characteristics enabling one to distinguish male from female leeches are discussed, and the indications for their application. The way to keep and feed them is dealt with, followed by the method to be employed in applying them and removing them again after they ingested the patient's corrupted blood<sup>868</sup> (35.4).

The leeches should be made to vomit the blood and can be used again after a week.<sup>869</sup> The after-treatment of the patient is discussed (35.5).<sup>870</sup>

Indications and contra-indications for cupping by means of a horn (śṛṅga), gourd (alāba), or small pot (ghaṭikā) are given (35.6).<sup>871</sup>

A.s.Sū.35.7–11 = A.h.Sū.26.51–56.

Chapter thirty-six (sirāvyadhavidhi) corresponds to the chapter of the same title (Sū. 27) of the *Hṛdaya*.

Phlebotomy (sirāvyadha) is declared to be the most important method of blood-letting (raktāvasacana) (36.2); it holds the same place in surgery as the application of clysters (basti) in internal medicine (36.3–4).

The origin and normal characteristics of blood are described;<sup>872</sup> it is of both a saumya and āgneya nature; blood is regarded as a doṣa, but some hold it to be a dūṣya, while others again say that it shares the nature of both (36.5). The effects on the body of blood in a normal state are dealt with, followed by a list of disorders arising from corrupted blood; when these cannot be cured by measures directed against the doṣas, they should be diagnosed as brought about by excitation of blood and, accordingly, treated by phlebotomy<sup>873</sup> (36.6).

Contra-indications for phlebotomy are listed;<sup>874</sup> the procedure to be adopted when

the blood does not flow out properly is described; cases where the contra-indications do not apply are mentioned<sup>875</sup> (36.7).

The places where phlebotomy should be carried out in a long series of diseases are enumerated (36.8).<sup>876</sup>

The preparations to be made by the physician are described: drugs that should be available, etc. (36.9). The technique of phlebotomy is dealt with in detail (36.10).<sup>877</sup> More instructions are given regarding the techniques of ligating vessels in various locations and piercing them (36.11).<sup>878</sup> The various depths of the incision, dependent on the structure of the tissues, is discussed (36.12),<sup>879</sup> followed by the signs indicating that the incision has been made properly, defectively or excessively (36.13–14).<sup>880</sup>

The causes of a failing of blood to appear are dealt with, the procedure to be followed in such a case, and the after-treatment (36.15).<sup>881</sup>

A.s.Sū.36.16 = A.h.Sū.27.38.

The procedure to be adopted when the patient faints is described.<sup>882</sup> The maximum amount of blood to be let is one prastha,<sup>883</sup> or somewhat more, dependent on the strength of the patient and the season (36.17).

The characteristics of blood corrupted by vāta, pitta, kapha, two doṣas, and all three doṣas are described,<sup>884</sup> followed by the care for the patient after bloodletting (36.18),<sup>885</sup> and the treatment to be followed when the flow of blood does not stop (36.19).<sup>886</sup>

A verse (36.20) states that blood is like prāṇa; loss of blood leads to weakness of the fire, which, in its turn, makes vāta increase.

When the corrupted blood has not disappeared completely, the letting should be repeated, the same day or the next day; the remnant left may be removed by other means, or phlebotomy should be carried out again after a month. Problems arisen from a faulty technique should be managed suitably (36.21).<sup>887</sup>

A.s.Sū.36.22–24 = A.h.Sū.27.51–53.

Chapter thirty-seven (śalyāharaṇavidhi) corresponds to the chapter of the same title (Sū.28) of the *Hṛdaya*.

Foreign bodies (śalya) may penetrate the body in three ways (gati): from above, from below and moving horizontally; each track may be straight or crooked (37.2).<sup>888</sup> The general characteristics of a wound (vraṇa) containing a foreign body are described (37.3),<sup>889</sup> followed by the characteristics of wounds where the foreign body is present in the layers of the skin, the muscular tissue (māṃsa) (37.4), a muscle (peśī), sirā, snāva (37.5), srotas, dhamanī, bone (37.6), joint, both bone and joint (37.7), the koṣṭha, and a marman (37.8).<sup>890</sup> The type of exudation (parisrāva) is also characteristic.<sup>891</sup> Small foreign bodies produce the same signs to a lesser degree (37.9).

The wound may heal first, but pain will arise later, when the doṣas have become excited (37.10).<sup>892</sup>

The treatment to be applied when the foreign body resides in the layers of the skin or the muscular tissue is described, as well as measures enabling the physician to detect its location (37.11). Similar methods are suitable when the foreign body has got stuck in the koṣṭha, a bone, muscle (peśī), or a cavity (vivara) (37.12).<sup>893</sup>

A special method for extracting a firmly lodged foreign body is described (37.13).<sup>894</sup> Methods for detecting a foreign body present in a joint, bone (37.14) or mannan (37.15) are dealt with.<sup>895</sup> General signs pointing to the precise location of a foreign body are discussed (37.16).<sup>896</sup>

Foreign bodies are either round, or may have two, three or four angles; their shape should be deduced (from the type of wound) when they are invisible (37.17).<sup>897</sup>

The anuloma and pratiloma ways of extraction are described (37.18–19),<sup>898</sup> contra-indications for extraction (37.20–21),<sup>899</sup> and a series of special methods for the extraction of foreign bodies (37.20–30).<sup>900</sup>

The subjects discussed next are the treatment of drowning, the removal of foreign objects and other things from the throat and the eyes (37.31–32),<sup>901</sup> and the removal of small animals from the ears (37.33).<sup>902</sup>

A.s.Sū.37.34 = A.h.Sū.28.43.

Objects which do not disintegrate spontaneously within the body are enumerated (37.35).<sup>903</sup>

A.s.Sū.37.36–39 = A.h.Sū.28.44cd–48.

The signs indicating that the foreign body has been removed are described (37.40).

The concluding verse compares the human body to a foreign body, but a foreign body, like, for example, an arrow, present in this human body, deserves attention (37.41).

Chapter thirty-eight (śastrakarmavihi) deals with the same subjects as the corresponding chapter (Sū.29) of the *Hṛdaya*.

Surgical measures (śastrakarman) are applicable to both nija and āgantū diseases (38.2).

In the early stage, characterized by swelling (śvayathu) only, the signs pointing to involvement of vāta, pitta, kapha or blood, or a combination of two or more of them simultaneously, should be taken into consideration,<sup>904</sup> and adequate treatment carried out, in order to prevent development of suppuration (pāka) (38.3).<sup>905</sup> When no alleviation occurs, pravilayana (liquefying measures) is necessary, and, in case this has no result, upanāhana (the application of poultices) (38.4).

The characteristics of an immature (āma) swelling (38.5),<sup>906</sup> a swelling in the stage of maturation (pacyamāna) (38.6),<sup>907</sup> and a mature (pakva) swelling (38.7)<sup>908</sup> are described.

A.s.Sū.38.8–9 = A.h.Sū.29.6cd–8ab.

Pāka of blood occurs in some cases of swelling due to kapha; its characteristics are dealt with (38.10).<sup>909</sup>

Indications are given for the treatment of ripe swellings with either dāraṇa by means of drugs, or by the surgical procedure called pāṭana (38.11).<sup>910</sup> The disorders that may arise from pāṭana of an unripe swelling are enumerated (38.12).<sup>911</sup>

A.s.Sū.38.13–14 = A.h.Sū.29.12cd–14ab.

A.s.Sū.38.15–16ab agrees with A.h.Sū.29.14cd–16ab.

The technique of pāṭana is described (38.16);<sup>912</sup> rules for the depth of the incision and the way of probing with an eṣiṇī, etc., are formulated (38.17).<sup>913</sup>



A.s.Sū.38.18–19 = A.h.Sū.29.20–22ab.

The places where a tiryakcheda is required are listed; when practised elsewhere, complications would arise (38.20).<sup>914</sup> The treatment to be applied after making an incision is discussed next (38.21).<sup>915</sup> Specifications regarding the number of windings (veṣṭana) of the dressing (paṭṭa) are given (38.22),<sup>916</sup> followed by the medical and religious treatment required when persisting pain occurs (38.23).<sup>917</sup>

A.s.Sū.38.24 = A.h.Sū.29.31.

The seat and couch of the patient should be fumigated.<sup>918</sup> The regimen to be observed is referred to; sleeping by day is to be avoided in particular (38.25–26).<sup>919</sup>

A.s.Sū.38.27 = A.h.Sū.29.33.

The diet to be observed is specified (38.28, prose).<sup>920</sup>

A.s.Sū.38.28 (verse) = A.h.Sū.29.38.

Articles of diet to be avoided are listed (38.29).<sup>921</sup>

A.s.Sū.38.30–32 = A.h.Sū.29.40cd–43ab.

Treatment of the wound should be repeated every third day; when carried out earlier, complications will arise (38.33).<sup>922</sup> Rules for the plug (vikeśikā) are given and its beneficial effects described (38.34–35).<sup>923</sup>

A.s.Sū.38.36 = A.h.Sū.29.48.

Suturing (sīvana), the suitable materials, etc., are discussed next (38.37).<sup>924</sup>

Rules for the technique are formulated;<sup>925</sup> types of suture and the after-treatment<sup>926</sup> are dealt with. Four kinds of suture are distinguished: goṣphaṇikā, tunnaśīvana, vellitaka, and rajjugranthi<sup>927</sup> (38.38). Contra-indications (38.39) and indications for suturing (38.40) are dealt with.<sup>928</sup>

Next, the fifteen kinds of bandage (bandha) are enumerated (38.41) and the parts of the body to which they may be applied.<sup>929</sup> Wounds and ulcers should not be bandaged, nor should a bandage squeeze and cause pain (38.42).<sup>930</sup>

Bandages can be wound to the left or to the right (38.43); they may be tight (gāḍha), slack (ślātha, śīthila), or even (sama); each of these three types is appropriate to a particular constellation of the doṣa(s) involved (38.44–45ab) and particular parts of the body (38.45; prose);<sup>931</sup> some more rules on the same subject follow.<sup>932</sup> The disorders are described which may arise without bandaging (38.46).<sup>933</sup> The advantages of bandaging are praised (38.47).<sup>934</sup>

A.s.Sū.38.48–55 = A.h.Sū.29.69–77ab.

The need to treat ulcers infested with maggots is stressed (38.56); this should be done carefully, without any haste (38.57).<sup>935</sup>

A.s.Sū.38.58ab = A.h.Sū.29.78cd.

After healing of an ulcer, the patient should continue avoiding particular things during six or seven months (38.58cd).<sup>936</sup>

The treatment of wounds and ulcers (vraṇa) will be dealt with in more detail in the Uttaraśthāna (38.59).

Chapter thirty-nine (kṣārapākavidhi) corresponds to the first part of the last chapter of the Sūtrasthāna of the *Hṛdaya* (Sū.30).<sup>937</sup>

Caustics (kṣāra) are said to be very important in medical practice; they possess

all the tastes, but are in particular kaṭuka and lavaṇa; tīkṣṇa and uṣṇa are their most outstanding properties; their actions are dahana, pācana, vidāraṇa, vilāyana, śodhana and ropaṇa; they remove parasites, āma, medas and viṣa. They are used for two purposes: external and internal parimārjana (39.2).<sup>938</sup> Indications for each of both types of parimārjana are enumerated (39.3),<sup>939</sup> followed by contra-indications for the use of a caustic (39.4).<sup>940</sup>

A kṣāra for external use is of three types: mṛdu, madhya and tīkṣṇa. The rituals to be performed on the day before chopping down a tree suitable to the preparation of a caustic is dealt with (39.5–7). The way to prepare a madhyamakṣāra from the tree, felled the next day, is described in detail (39.8).<sup>941</sup> The substances to be employed in the preparation of a mṛdu and a tīkṣṇa caustic are mentioned. Such a caustic is ready for use after a week.<sup>942</sup> The ten good and the ten bad qualities of caustics are listed (39.9).<sup>943</sup>

The technique of applying a caustic in general and many special rules for the application in a long series of diseases affecting particular parts of the body are dealt with next, followed by prescriptions for the after-treatment (39.10).<sup>944</sup>

The signs pointing to proper, deficient and excessive burning with a caustic are described, followed by those indicating excessive treatment of particular parts of the body.<sup>945</sup> The proper remedial measure after excessive burning is nirvāpaṇa<sup>946</sup> (39.11).

A.s.Sū.39.12 = A.h.Sū.30.39.

The treatment of the disorders caused by excessive use of a kṣāra is discussed (39.13–16). After this, a kṣāra should be applied again, in the proper measure; cooling measures are necessary in cases of excessive bleeding (39.17–18).<sup>947</sup>

Chapter forty (agnikarmavidhi) corresponds to the second part of the last chapter of the Sūtrasthāna of the *Hṛdaya* (Sū.30).

Cauterization (agnikarman) is declared to be even more efficient than the application of caustics.<sup>948</sup> Tissues and bodily structures to be treated by this method are the skin, muscular tissue, sirās, snāyus, joints and bones.<sup>949</sup> Diseases to be managed by a particular type of cauterization, tissues and bodily structures suitable to a particular type, and the instruments and substances to be employed in these types are enumerated<sup>950</sup> (40.2).

The contra-indications for applying cautery are listed (40.3).<sup>951</sup> The technique<sup>952</sup> and the after-treatment<sup>953</sup> are dealt with next (40.4).

The signs pointing to successful cauterization of the skin, muscular tissue, sirās, and snāyus, etc., are described (40.5).<sup>954</sup> The four types of pramādadagdha (burns caused by improper cautery) are discussed: tuttha,<sup>955</sup> durdagdha, samyagdagdha<sup>956</sup> and atidagdha.<sup>957</sup> The very bad effects of burns by oil are noticed (40.6).

The treatment to be applied in these types of pramādadagdha and in burns by oil is described in verse (40.7–14ab).<sup>958</sup>

A physician is advised to be very careful in applying sharp surgical instruments, caustics and cautery (40.14c–f).<sup>959</sup>

The last verse says that the Sūtrasthāna, dealing with subtle subjects, is completed now (40.41).

## Chapter 2

### Śārīrasthāna

Chapter one (putrakāmiya), which corresponds to part of the first chapter of the Śārīrasthāna of the *Hṛdaya*, deals with the following subjects: the features making a girl eligible as a bride for a man;<sup>1</sup> the girl should be twelve, the man twenty-one years of age (1.2); the age for begetting a first child: sixteen years for the female, twenty-five years for the male partner;<sup>2</sup> the problems that may arise when the partners are younger;<sup>3</sup> the same problems are likely to occur when conception takes place during the first three nights of the first fertile period (1.3);<sup>4</sup> the physiology of the production of male and female seed (śukra), its ejaculation, its properties<sup>5</sup> (1.4); the female procreational fluid (rakta) accumulates every month in the uterus (garbhakoṣṭha), whence it flows out as the menstrual discharge for three days; when the amount of this discharge is too large or when it flows out during a longer time, or when it appears during another part of the cycle, the disorder is called aśṛgdara, pradara or raktayoni; its treatment may be looked up in the chapters on the therapy of raktapitta and guhyaroga (1.5);<sup>6</sup> amenorrhoea appears when vāta and kapha cover the pathways of the procreational fluid; pitta-producing measures are then required;<sup>7</sup> when this disorder progresses and the procreational fluid remains inside,<sup>8</sup> whether combined with śukra or not, it may develop into gulma and bring about signs of pregnancy, in particular when the woman indulges in vāta-promoting articles of diet and behaviour; its treatment is described in the chapter on gulma (1.6); vātodara, which resembles pregnancy, sometimes develops; it is alleviated by measures counteracting vāta (1.7);<sup>9</sup> this disorder sometimes progresses, thus simulating an established pregnancy and becoming a trap to foolish physicians; when, later, due to contrary factors or accidentally (yadrcchayā), blood begins to appear, without any sign of a child to be born, these fools say that the foetus has been taken away by a bhūta; however, the beings called rakṣas<sup>10</sup> deprive a pregnant woman and her child of their ojas only, but do not take away the child's body, because they are not keen on this or unable to do so; anyhow, the taking away of a body by non-human beings has never been observed (1.8); the author objects to those who nevertheless assert that this happens sometimes by declaring that it is hard to explain why these very powerful beings carry off the unborn child only and desist from attacking the mother's body (1.9);<sup>11</sup> the characteristics of a pure menstrual discharge (ārtava) (1.10);<sup>12</sup> the reproductive age ranges from sixteen to seventy in males, from twelve to fifty in females (1.11);<sup>13</sup> the preparation of a couple for sexual intercourse (1.12);<sup>14</sup> the disorders of the male seed are those caused by vāta, pitta, and kapha, and those called kuṇapagandhi-, granthi-, pūya-, kṣīṇa-, mūtra-, and puriṣaretas;<sup>15</sup> these disorders result in infertility;<sup>16</sup> the characteristics of seed corrupted by vāta, pitta, or kapha;<sup>17</sup> the relationships be-

tween the other disorders and the doṣas, respectively blood<sup>18</sup> (1.13); the disorders of the ārtava are the same as those of the male seed, their relationships with the doṣas and blood are identical, and they also lead to infertility;<sup>19</sup> the degrees of curability of the disorders of śukra and ārtava<sup>20</sup> (1.14); the treatment of the disorders of the male seed caused by vāta, pitta, or kapha (1.15);<sup>21</sup> the treatment of the same types of disorders of the ārtava, which are called puṣpadoṣa here (1.16);<sup>22</sup> the treatment of the other types of disorders of semen and ārtava (1.17);<sup>23</sup> general treatments for all types of disorders of semen and ārtava (1.18); four different opinions on the duration of the fertile part of the menstrual cycle (1.19).<sup>24</sup>

A.s.Śā. 1.20–22 = A.h.Śā. 1.20cd–23ab.

The chapter proceeds with the rules to be observed by a woman during the first three days of the cycle (1.23);<sup>25</sup> the behaviour prescribed for the fourth day (1.24);<sup>26</sup> intercourse should not take place during the first week of the menstrual cycle;<sup>27</sup> couples wanting a son should have intercourse on the even days of the fertile period, those wanting a daughter on the odd days;<sup>28</sup> the desirable qualities of the offspring decrease with the advance of the fertile period<sup>29</sup> (1.25); the male seed is said to prevail on even, the female procreational fluid on odd days; this rule does not apply when the menstrual period continues for more than three days; intercourse on the days mentioned as favourable to begetting a son or daughter may under such circumstances lead to the birth of a child with a mixture of male and female characteristics or with deficient limbs; intercourse on the eleventh or thirteenth day results in the birth of a napuṃsaka (1.26); the ritual ensuring the birth of a son should be performed by the upādhyāya<sup>30</sup> and the female partner should concentrate her thoughts on the type of son she wants to conceive<sup>31</sup> (1.27); the rules to be observed after the ritual by both partners; details concerning the way of mounting their couch;<sup>32</sup> the mantra to be pronounced<sup>33</sup> (1.28); rules for the coitus (1.29);<sup>34</sup> circumstances unfavourable to impregnation; the male should not lie under the female, for this would lead to the conception of a son or daughter with behavioural characteristics of the opposite sex; a bent position (nyubja) would make vāta strong, thus exerting pressure on the generative organs; kapha moves downwards, thus occluding the uterus, when the woman lies on her right side; when she lies on her left side, pitta will do so and lead to vidāha of the procreational fluid;<sup>35</sup> therefore the woman should lie down, which ensures that the doṣas remain in their seats<sup>36</sup> (1.30); reference is made to a series of opinions on the days suitable to the puṃsavana ritual (1.31).<sup>37</sup>

The description of the puṃsavana differs from that found in the *Hṛdaya*; the drinking of milk in which has been placed a male figure of gold, silver or iron is not mentioned;<sup>38</sup> the opinion that human effort (puruṣakāra) may overcome daiva<sup>39</sup> is not explicitly expressed; the number of herbs that may be employed is larger; the sniffing at a warm paste of śāli rice and putting some of it in one of the nostrils, while standing on the threshold of the house, is added<sup>40</sup> (1.32–33).

The chapter continues with measures making sure that the pregnancy is maintained (prajāsthāpana) (1.34);<sup>41</sup> the care to be given to the pregnant woman by her servants and husband;<sup>42</sup> a rule for intercourse during pregnancy (1.35); factors influencing the colour of the child's skin are: the characteristics of the male seed, the mother's diet, the

country and family of the parents (1.36), and the predominant mahābhūtas (1.37);<sup>43</sup> the sattva of the child is determined by the sattvas of its parents, the sounds heard by the mother, and the karman of the child (1.38);<sup>44</sup> factors leading to a sustained stability of the ārtava (during the fertile period of the cycle) (1.39); impregnation will take place when both partners are well prepared (1.40); puṁsavana will be successful in the absence of contrary daiva and an unsuitable time, and should be performed before signs of pregnancy become visible (1.41);<sup>45</sup> thus sons with desirable characteristics will be born (1.42–43); the seed (śukra) that flows out of the female organs during intercourse will not contribute to conception (1.44).

Chapter two (garbhāvakrānti), which corresponds to part of chapter one of the Śātrasthāna of the *Hṛdaya*,<sup>46</sup> is concerned with the process of conception, i.e., the union of semen and ārtava and the entry of the jīva (2.2);<sup>47</sup> the product of fertilization divides and assumes a particular form; it develops into a male when semen, into a female when ārtava predominates; a napuṁsaka will be born when semen and ārtava are in balance; vāta may split the product of fertilization into two or more parts, thus giving rise to twins or another type of multiple birth; morbid changes of semen and ārtava lead to abnormalities in the embryo (2.3);<sup>48</sup> the early and the later developing signs of pregnancy (2.4);<sup>49</sup> the menses disappear during pregnancy because the rajas-transporting channels are obstructed by the foetus; the accumulating rajas develops into the aparā,<sup>50</sup> or, according to others, into the jarāyu; due to this obstruction of rakta (= rajas), the romaṛāji becomes visible (2.5); part of the asṛj (= rakta) goes upwards, thus leading to swelling of the cheeks and breasts, and to a dark colour of lips and nipples (cūcuka); another part, coloured (white) by kapha, goes to the breasts and turns into milk,<sup>51</sup> replenished after parturition by the juice deriving from the mother's food (2.6); the development of the child during the first three months of pregnancy (2.7);<sup>52</sup> the mental and bodily characteristics of a male, female or napuṁsaka become manifest; napuṁsakas may possess all grades of mixed characteristics (2.8); those typical of a napuṁsaka with mainly female traits are enumerated, those of the opposite type can then be deduced (2.9);<sup>53</sup> sensations (vedanā) arise in the foetus; it begins to move (spandate) and to desire for the objects of the five senses (2.10); the heart of the foetus is connected with that of the mother by rasa-carrying vessels (dhamanī); this is the cause of the appearance of the longings (śraddhā) in the mother, who is therefore called dauhṛdīnī;<sup>54</sup> others assert that these longings appear in the fourth month (2.11); the longings should be respected; otherwise, vāta gets excited and causes annihilation of the foetus or malformations;<sup>55</sup> gratification will result in the birth of a strong, long-lived son (2.12); the development of the foetus during the fourth to seventh months (2.13);<sup>56</sup> the signs of instability during the eighth month; the problems during this period are due to the variability of the distribution of ojas over the bodies of mother and child (2.14);<sup>57</sup> others hold that the foetus may die in this month, not due to the instability of the ojas, but on account of the demonic influences of the Nairṛtas (nairṛtabhāgatva); these beings should be soothed by appropriate types of bali;<sup>58</sup> after expiry of the eighth month until a full year has elapsed, a woman may give birth (prasavakāla); delivery taking place later will result in an abnormal child<sup>59</sup> (2.15); the position of the foetus within the womb,

dependent on its sex;<sup>60</sup> the rhythm of sleeping and being awake of the child depends on that of the mother;<sup>61</sup> the child in the womb is completely dependent (paratantravṛtti) and lives upon the upasneha and upasveda produced in the uterus<sup>62</sup> (2.16); the major and minor parts of the foetus become gradually visible; the child's nutrition takes place through the umbilical cord, attached to the placenta (aparā), which is connected to the mother's heart; the juice derived from the mother's food is carried by the dhamaṇīs from her heart to the placenta, and thence to the child's navel; it is digested in the child's pakvāśaya and nourishes, being rich in prasāda, its bodily constituents;<sup>63</sup> the upasneha is absorbed through the pores of the child's hairs (2.17); the reason for the non-production of urine and faeces in the foetus;<sup>64</sup> the position in which a child is normally born (2.18);<sup>65</sup> signs indicating that the pregnancy will result in the birth of a boy, girl or klība (= napuṃsaka) (2.19);<sup>66</sup> when vāta desiccates the vessels transporting rasa, the child may suffer from a vāta disease or show defective limbs; such a foetus may remain in the womb for several years (2.20);<sup>67</sup> factors resulting in the birth of children liable to show abnormal types of sexual behaviour and functioning; the types described are called dviretas (2.21),<sup>68</sup> vātendriya (2.22),<sup>69</sup> saṃskāravāhya (2.23),<sup>70</sup> āśekya (2.24),<sup>71</sup> vakradhva ja (2.25),<sup>72</sup> saugandhika (2.26),<sup>73</sup> Irṣyārati (2.27),<sup>74</sup> and vātaśaṇḍaka (2.28);<sup>75</sup> disorders of the child in the womb will affect the same body parts as those affected in the mother (2.29);<sup>76</sup> the causes of sterility (vandhyāṭva) and a disorder leading to repeated stillbirth (pūtipra jāṭva) (2.30);<sup>77</sup> the origin of a pseudo-female called vārttā or strīvāpad; these three disorders arise when the germ (bīja) of the mother or part of it, which is transmitted to the child, is corrupted (2.31);<sup>78</sup> when the father is affected in the same way, three corresponding disorders may manifest themselves, resulting in the birth of an infertile son (vandhya), one who will beget stillborn children, or one whose children will be pseudo-males (tṛṇamukhin) (2.32);<sup>79</sup> disorders of those parts which have their origin in sātmya, rasa and sattva have thus been explained;<sup>80</sup> a child will develop disorders of those body parts which were already affected (upatapti) in a rudimentary form in the bīja or part of it; the same disorders do not occur secondarily (by anutāpa) (2.33); an expectant mother, repeatedly indulging in things that provoke one or more of the doṣas, will get a child prone to disorders caused by that doṣa or those doṣas<sup>81</sup> (2.34); affections of the child's eyes associated with the influence of tejas (fire); when this element does not reach the region of the eyes, the child will be born blind (jātyandhatva); when tejas is associated with one of the doṣas or blood, the eyes will have a particular colour (2.35);<sup>82</sup> things to be avoided by a pregnant woman (2.36);<sup>83</sup> things which are prohibited in order to avoid provoking malevolent beings and deities; particular types of behaviour resulting in specific characteristics or disorders of the child are enumerated (2.37);<sup>84</sup> general rules for the medical treatment of pregnant women (2.38–40);<sup>85</sup> an explanation for the fact that a child in the womb does not cry (2.41).<sup>86</sup>

Chapter three (garbhopakaraṇīya), which corresponds to part of chapter one of the Śā-rīrasthāna of the *Hṛdaya*, discusses the following subjects: dietary and other rules for a pregnant woman during the first month (3.2) and second to seventh months;<sup>87</sup> women say that vidāha arises in the mother during the seventh month, caused by the appearance

of the hair of the head in the foetus; this view is rejected by Ātreya, who says that, due to the pressure of the foetus, the doṣas reach the region of the mother's heart and cause vidāha, which, in its turn, results in itching (kaṇḍū) and, later, the appearance of striae (kikkisa)<sup>88</sup> (3.3); the treatment of itching and skin disorders caused by the striae (3.4);<sup>89</sup> the diet during the eighth month; Khaṇḍakāpya disagrees with the rule, asserting that the articles of diet mentioned may lead to paiṅgalya in the child; Ātreya defends the rule regarding diet, saying that the advantages prevail on this risk (3.5);<sup>90</sup> clysters which are useful during the eighth month (3.6);<sup>91</sup> these clysters should be applied in a bent position (nyubja) (3.7); the diet up to the time of delivery according to Dhanvantari (3.8);<sup>92</sup> useful measures from the ninth month onwards (3.9);<sup>93</sup> prescriptions for the daily bath (3.10); the construction of the maternity home (sūtikāgāra) (3.11);<sup>94</sup> rules for its entry (3.12);<sup>95</sup> signs indicating the approach of delivery (3.13);<sup>96</sup> the management of this stage by experienced women (3.14);<sup>97</sup> additional measures to be taken (3.15);<sup>98</sup> the spontaneous turning (parivartana) of the foetus and the measures necessary when this fails to occur (3.16);<sup>99</sup> others advise the woman to pound the grain with which a mortar has been filled; this method is rejected;<sup>100</sup> the reasons for this rejection are given (3.17);<sup>101</sup> the parturient woman should lie down now; an experienced woman sitting at her feet should put oil on her yoni, press her buttocks with her feet, and urge her to push gently (3.18);<sup>102</sup> at the same time, another woman should mutter two mantras in her left ear;<sup>103</sup> the second mantra refers to Soma, Citrabhānu, and the horse Uccaiḥśravas<sup>104</sup> (3.19–23); the management of the expulsion of the placenta (3.24–25);<sup>105</sup> the treatment of protracted labour (garbhasaṅga) (3.26);<sup>106</sup> the management of retention of the placenta (23.27–28);<sup>107</sup> other measures useful in this condition (3.29–33);<sup>108</sup> the symptoms and treatment of makkalla (3.34–35);<sup>109</sup> the treatment of a prolapsed uterus (yonibhramśa) (3.36); the treatment during the first few days after delivery (3.37–38);<sup>110</sup> the treatment in the later stages of the lying-in period (3.39); the rules should be observed very carefully because diseases occurring in the puerperium are difficult to cure or incurable;<sup>111</sup> the restrictions valid for the puerperium end after six weeks; the new mother is then called vigatasūtikā; others hold that the period is longer and continues until menstruation sets in again (3.40–41).<sup>112</sup>

Chapter four (garbhavyāpad), corresponding to the chapter of the same title (Śā.2) of the *Hṛdaya*, discusses the following subjects: the treatment of bleeding, accompanied by piercing pain, during pregnancy (4.2–6);<sup>113</sup> the treatment of piercing pain without loss of blood<sup>114</sup> (4.7); bleeding during the first three months usually results in abortion (4.8);<sup>115</sup> untimely birth may occur in the later months too when the blood is accompanied by āma,<sup>116</sup> because protective measures for the foetus and measures against āma are contradictory (4.9); therapeutic measures to be tried nevertheless (4.10);<sup>117</sup> the treatment of abortion (āmagarbhapāta) (4.11)<sup>118</sup> and incomplete abortion (āmagarbhāśeṣa) (4.12); the processes leading to the disorders of pregnancy called upaviṣṭaka and upaśuṣkaka (4.13);<sup>119</sup> general descriptions of upaviṣṭaka and upaśuṣkaka; the latter is also called nāgodara (4.14);<sup>120</sup> in both conditions, the foetus grows very slowly; the child will be born at last, but after a very long pregnancy (4.15); the symptoms in upaviṣṭaka and upaśuṣkaka pregnancies caused by vāta (4.16), pitta (4.17) and kapha (4.

18);<sup>121</sup> the general treatment of upaviṣṭaka and upaśuṣṭaka (4.19);<sup>122</sup> the treatment of their doṣic varieties (4.20–21); the induction of abortion in case the foetus does not grow (4.22); the treatment of the disorder called līnagarbha;<sup>123</sup> the general treatment of udāvarta and vibandha in pregnant women (4.23);<sup>124</sup> their treatment in the eighth month, which is urgent, because of the danger of premature birth (4.24–25);<sup>125</sup> the processes leading to abortion (4.26); the symptoms arising when the foetus dies within the womb (mr̥tagarbhā) (4.27);<sup>126</sup> the general features of mūdhagarbha; its innumerable varieties (4.28); the position of the foetus may change in an upward, oblique or downward direction; eight varieties are known,<sup>127</sup> to be described both here and later (4.29); cases refractory to treatment (4.30);<sup>128</sup> in general, a garbhaśālya (foetus stuck within the womb) is very dangerous and needs immediate treatment (4.31); cutting up of a foetus still alive would kill its mother (4.32);<sup>129</sup> therefore, one should try first treatment with mantras and drugs;<sup>130</sup> the foetus may get stuck in three ways: with its head, shoulders or buttocks (4.33); three different opinions on the treatment of mūdhagarbha are recorded: the treatment also employed in expulsion of the afterbirth (jarāyupātana), the employment of mantras, etc., found in the *Atharvaveda*, and the surgical removal of the foetus (4.34); surgical interventions are not difficult to perform, because one hand suffices to carry them out (4.35); these interventions are necessary in order to save the mother's life; the outcome is doubtful; the surgeon ought to ask for the king's permission, as in cases of operating patients with udara, aśmarī, etc.<sup>131</sup> (4.36); the general procedure of manual extraction (4.37);<sup>132</sup> instructions for the manual correction of various malpositions and for extraction of the foetus (4.38);<sup>133</sup> two malpositions that cannot be managed manually and need surgical intervention (4.39);<sup>134</sup> the techniques of cutting up a foetus in various malpositions (4.40).<sup>135</sup>

A.s.Śā.4.41 = A.h.Śā.2.35.

A.s.Śā.4.42–50 = A.h.Śā.2.39–46.

The preparation and uses of balātaila are described (4.51).

A.s.Śā.4.52–59 = A.h.Śā.2.53–60.

Chapter five (āṅgavibhāga) corresponds to part of the chapter of the same title (Śā.3) of the Śārīrasthāna of the *Hṛdaya*.

The subjects dealt with are: the body, its six major parts, the minor parts (5.2);<sup>136</sup> the body is composed of the mahābhūtas, which in their turn consist of the mahāguṇas,<sup>137</sup> based in their turn on cetanā (5.3); the products of the mahābhūtas are of very numerous kinds (5.4); the relationships between the five mahābhūtas and the three guṇas;<sup>138</sup> the main characteristics of the five mahābhūtas: apratighāta, calatva, auṣṇya, āravatā, kāthinya; each mahābhūta has its specific seat in one of the senses (5.5);<sup>139</sup> bodily structures and functions connected with one of the mahābhūtas in particular (5.6);<sup>140</sup> the parts of the body deriving from the mother (5.7)<sup>141</sup> and the father (5.8),<sup>142</sup> from the ātman (5.9),<sup>143</sup> from sātmya (5.10),<sup>144</sup> and from rasa (5.11);<sup>145</sup> characteristics deriving from sattva (5.12),<sup>146</sup> rajas (5.13),<sup>147</sup> and tamas (5.14);<sup>148</sup> a synonym of sattva is manas; rajas and tamas are afflictions (upaplava) of manas (5.15); the constituents of the body; the six layers of the skin arise from blood, in the same way as the coagulated layers on the surface of milk which is boiled;<sup>149</sup> the pure part (prasā-



da) of blood arises from the prasāda of the layers of the skin (5.16); a description of these layers, their names, and the diseases located in them (5.17);<sup>150</sup> the seven layers of the skin according to another view (5.18);<sup>151</sup> the description of a kalā in general (5.19);<sup>152</sup> descriptions of each of the seven kalās (5.20–24);<sup>153</sup> the five senses (buddhi-ndriya), their objects and seats (adhiṣṭhāna) (5.25); the five karmendriyas and their functions (5.26); the manas and its functions (5.27); the seven āśayas, and the additional eighth one in women;<sup>154</sup> the viscera (koṣṭhāṅgāni): heart (hrdaya), liver (yakṛt), spleen (plīhan), phupphusa, uṇḍuka, kidneys (vṛkka), intestines (antra), etc.;<sup>155</sup> liver and spleen derive from the clear (accha) part of blood,<sup>156</sup> when it is acted upon by the samāna and the bodily heat (dehoṣman);<sup>157</sup> the frothy part (phena) of blood gives rise to the phupphusa,<sup>158</sup> its waste matter (kiṭṭa) to the uṇḍuka;<sup>159</sup> the kidneys arise from the pure parts (prasāda) of blood and fatty tissue,<sup>160</sup> the intestines from those of blood and muscular tissue;<sup>161</sup> the length of the intestines is three yāma and a half in men, three yāma in women;<sup>162</sup> the kāliya is produced from a combination of blood and vāta;<sup>163</sup> the heart finds its origin in the pure parts of kapha and blood;<sup>164</sup> it has the form of a padmakōśa, with its opening turned downwards and provided with holes (suṣira);<sup>165</sup> the cetanā has its seat there,<sup>166</sup> together with all the bhāvas associated with it; at its left are spleen and phupphusa, at its right liver and kloman<sup>167</sup> (5.28); the sense organs arise from the pure parts of the channels (srotas) transporting kapha and blood and from the pure parts of the mahābhūtas;<sup>168</sup> the śuklamaṇḍala of the eyes, which is of paternal origin, arises from the pure part of kapha, the kṛṣṇamaṇḍala, which is of maternal origin, from (the pure part of) blood;<sup>169</sup> the dṛṣṭīmaṇḍala combines these features of both (maṇḍalas) (5.29); the five maṇḍalas of the eye are the lashes (pakṣman), lids (vartman), śuklamaṇḍala, kṛṣṇamaṇḍala, and aṣṭi;<sup>170</sup> they are connected by four junctions (sandhi); two more junctions, at the outer (apāṅga) and inner corner of the eye (kanīna) make their total number into six;<sup>171</sup> the eye has six layers (paṭala); the two outermost layers consist of the eyelids; fire and water are predominant in the (first and) outermost layer (of the eye itself); the predominant elements of the second, third and fourth layers are, in due order, muscular tissue, fatty tissue and bony tissue;<sup>172</sup> the thickness (bahalā) of the paṭalas amounts to one fifth of that of the dṛṣṭī<sup>173</sup> (5.30); the twines binding bodily structures together (bandhanaguṇa)<sup>174</sup> consist of sirās, kaṇḍarās, fatty tissue and phlegm (kapha); as already mentioned, kapha is the most important substance that binds junctures together; the fire located in the eye can perform its function through its contact with the fire outside of the body, in the same way as a sharp instrument through its contact with a whetstone; damage will occur when the contact is excessive (atiyoga); this fire retains its fiery nature by the intensity of its power (vīryotkaṣa), just like the fire of lightning (vaidyuta) and the vaḍavāmukha<sup>175</sup> do so amidst of the water; the tongue arises from the pure parts of muscular tissue, blood and kapha,<sup>176</sup> the testicles (vīṣaṇa) from those of muscular tissue, blood, kapha and fatty tissue<sup>177</sup> (5.31); the ten prāṇāyatanas;<sup>178</sup> the first seven of the series (head, frenum of the tongue, throat, heart, umbilical region, urinary bladder, ano-rectal region) are the major vulnerable areas (mahāmarman) (5.32); the kaṇḍarās are sixteen in number: two in each arm and leg, four in the neck, and four in the back (5.33);<sup>179</sup> the jālas of muscles, sirās, snāyus and bones are sixteen in number; each wrist and ankle has one jāla of each of the four

types (5.34);<sup>180</sup> the six kūrcas are found in the hands, the feet, the neck and the penis (5.35);<sup>181</sup> four māṃsarajjus are present along the vertebral column (5.36);<sup>182</sup> the sīvanīs are seven in number: five are present in the head,<sup>183</sup> one belongs to the tongue,<sup>184</sup> one to the penis<sup>185</sup> (5.37);<sup>186</sup> the clusters of bones (asthisamghāta) are fourteen in number: one cluster in each ankle (gulpha), knee (jānu), groin (vaṃkṣaṇa), wrist (maṇibandha), elbow (kūrpara), and armpit (kakṣyā), one in the sacral region (triṣa), and one in the head (śiras) (5.38);<sup>187</sup> the sīmantas are connected with the clusters of bones, but there are five of them in the head, thus making a total of eighteen (5.39);<sup>188</sup> the number of bones is 360;<sup>189</sup> 140 bones are present in the extremities,<sup>190</sup> 120 bones in the trunk, and 100 in the part above (the trunk); each leg has five toe nails;<sup>191</sup> each toe possesses three bones; there are five metatarsal bones (pādaśalākā)<sup>192</sup> and one bone connecting them (śalākāpratibandhana);<sup>193</sup> two bones are present in each kūrcā,<sup>194</sup> ankle (gulpha)<sup>195</sup> and lower leg,<sup>196</sup> while heel (pārṣṇī),<sup>197</sup> knee<sup>198</sup> and thigh<sup>199</sup> possess one bone; the same distribution is found in the arms (5.40); the ribs (parśuka)<sup>200</sup> are twenty-four in number;<sup>201</sup> there are as many sthālakas and arbudas;<sup>202</sup> the back possesses thirty,<sup>203</sup> the anterior part of the chest eight bones;<sup>204</sup> the bhaga<sup>205</sup> and trika<sup>206</sup> have one bone each; each nitamba has one bone;<sup>207</sup> there are two akṣakas, aṃsas and aṃsapahalakas<sup>208</sup> (5.41); one bone is present in each cheek (gaṇḍa), ear and temple;<sup>209</sup> there is one bone in the jātru<sup>210</sup> and one in the palate (tālu);<sup>211</sup> the neck (grīvā) has thirteen,<sup>212</sup> the trachea (kaṇṭhanāḍī) four bones;<sup>213</sup> there are two bones in the jaw (hanubandhana);<sup>214</sup> the teeth are thirty-two in number;<sup>215</sup> there are as many sockets (ulūkhala) of the teeth;<sup>216</sup> three bones are present in the nose,<sup>217</sup> six in the skull<sup>218</sup> (5.42); the bones belonging to the five groups called kapāla, rucaka, taruṇa, valaya, and nalaka;<sup>219</sup> fleshy parts of the body are attached to the bones by sirās and snāyus<sup>220</sup> (5.43); the joints connecting bones are 210 in number;<sup>221</sup> sixty-eight joints are present in the extremities, fifty-nine in the trunk, eighty-three in the part above (the trunk); each toe has three joints, apart from the first one, which has two; each ankle, knee and groin possesses one joint (5.44); three joints are present in the flat pelvic bones (kaṭikapāla), twenty-four in the vertebral column (prsthavaṃśa), an equal number in the sides of the chest (pārśva), eight in the anterior part of the chest (uras) (5.45); eight joints are present in the neck (grīvā), three in the kaṇṭhanāḍī,<sup>222</sup> eighteen in the nāḍīs of heart, liver and kloman<sup>223</sup> (these joints are attached to the kaṇṭhanāḍī),<sup>224</sup> thirty-two in the roots of the teeth; one joint is present in kākala, nose and head respectively, two joints are present in the cheeks, ears, temples, eyelids, and jaws, two above the eyebrows, and five in the flat bones of the skull (5.46);<sup>225</sup> the eight kinds of joints and where they are found (5.47);<sup>226</sup> the junctures present in snāyus, muscles (peśī) and sirās are two thousand in number, but are of no practical importance in surgery (5.48);<sup>227</sup> the number of snāyus is nine hundred;<sup>228</sup> six hundred of them are found in the extremities, two hundred and thirty in the trunk, and seventy in the part above (the trunk); each toe possesses six snāyus; each sole, kūrcā and ankle has ten snāyus; their number is thirty in the lower leg, ten in the knee, forty in the thigh, and ten in the groin (5.49);<sup>229</sup> forty snāyus are present in the pelvic region (kaṭi),<sup>230</sup> twenty in the region of penis, testicles, bladder and intestines,<sup>231</sup> eighty in the back,<sup>232</sup> sixty in the lateral parts of the chest (pārśva),<sup>233</sup> eighteen in the anterior part of the chest (uras),<sup>234</sup> four in the region of the clavicles (akṣaka), and eight in the

shoulder regions (aṃṣa)<sup>235</sup> (5.50); two snāyus are found in each manyā, aṇḍa,<sup>236</sup> eye, half of the lips and half of the palate,<sup>237</sup> thirty in the neck,<sup>238</sup> three in the jatru, four in the jaw, five in the tongue, twelve in the upper and twelve in the lower gums, six in the (remaining part of the) head<sup>239</sup> (5.51); the snāyus in the extremities and joints are pratānavant; big and round ones are called kaṇḍarā; snāyus with holes (suśira) are found in bladder, āmāśaya, pakvāśaya and intestines; flat snāyus are present in the lateral parts of the chest, back, anterior part of the chest, and head (5.52);<sup>240</sup> a body, well provided with snāyus, is like a properly built boat; these structures should therefore be protected; a physician acquainted with them is able to extract foreign bodies, even when hidden within the tissues (5.53);<sup>241</sup> the muscles (peśī) are five hundred in number;<sup>242</sup> four hundred are found in the extremities, sixty in the trunk, forty in the region above of the trunk;<sup>243</sup> three muscles are present in each toe, ten in the fore part of the foot (prapada), the sole and the ankle,<sup>244</sup> an equal number in the kūrca, twenty in the lower leg, five in the knee, and twenty in the thigh<sup>245</sup> (5.54); one muscle is present in the penis, one in the raphe (sevanī), two are present in the testicles, ten in the buttocks, three, called valī, in the anal region, two in the bastiśiras, four in the abdominal wall;<sup>246</sup> one muscle is found in the umbilical region, heart and āmāśaya, six muscles are present in liver, spleen and uṇḍuka; five muscles are present in the upper part of the back,<sup>247</sup> ten long ones in the sides of the chest,<sup>248</sup> ten in the anterior part of the chest, and three in the region of shoulder and clavicle<sup>249</sup> (5.55); ten muscles are present in the neck,<sup>250</sup> eight in the cheeks,<sup>251</sup> eight in the region of the jaw; one muscle is found in throat,<sup>252</sup> kākala, tongue<sup>253</sup> and head;<sup>254</sup> two muscles are present in the palate, forehead,<sup>255</sup> nose, lips, and ears<sup>256</sup> (5.56); women possess twenty more muscles;<sup>257</sup> ten muscles, which develop during puberty, are found in the breasts, the other ten in the generative organs (yoni); two muscles are found internally (abhyantarāśrita),<sup>258</sup> two round (vṛtta) ones in the (yoni)mukha,<sup>259</sup> three more in the garbhamārga, where the foetus stays;<sup>260</sup> the yoni possesses three whirls (āvarta) in the form of a śaṅkhanābhi;<sup>261</sup> the garbhaśayyā (uterus)<sup>262</sup> is found at the third āvarta,<sup>263</sup> between pittāśaya and pakvāśaya;<sup>264</sup> it has three muscles, which conduct seed and ārtava<sup>265</sup> (5.57); the muscles, diverse as to form, cover the joints, bones, sirās and snāvas (5.58);<sup>266</sup> the openings of the minutest branches of sirās and dhamaṇīs are 2,900.956 in number (5.59);<sup>267</sup> the hairs of head, beard and body are equal in number;<sup>268</sup> they are nourished by the openings mentioned, which also convey sweat outwards, while carrying to the interior of the body the active constituents (vīrya) of ointments, plasters, etc., digested within the skin, as well as tactile sensations (5.60); the number of structures called srotas is countless; the distribution, etc., of the sirās, will be discussed in another chapter; the firm and perceptible bodily structures have now been dealt with (5.61); excess fluids in the body are mixed with the faeces; similar processes occur with regard to urine, blood and other dhātus;<sup>269</sup> excess fluid present in the whole body may accumulate in the outer part of the skin; fluid present within the skin may accumulate in wounds and sores as lasīkā; fluid associated with the bodily heat may appear as sweat; all these substances consist of water (5.62);<sup>270</sup> the quantities of water, āhārasāra or rasa, blood, faeces, kapha, pitta, urine, vaśā, medas, and bone marrow can be measured in añjali; the quantity of bone marrow is one añjali; the quantities of the other constituents increase with one añjali in

the reverse order; seed, brain tissue (mastiṣka) and ojas are present in a quantity of half an añjali;<sup>271</sup> the rajas of women measures four, the breastmilk two añjali; the last two derive from the pure part of rasa (5.63); the mentioned quantities are those of a healthy (samadhātu) human being; the quantities present in states of decline or increase should be deduced from the signs present in those states; the same applies to constituents not enumerated, such as muscular tissue, the impurities of the ears, etc., vāyu, buddhi, smṛti, etc. (5.64); the opinion of the Dhanvantariyas is referred to, who hold that the normal quantities of bodily constituents are not fixed, on account of the differences among individuals and the physiological variations of doṣas, dhātus and malas; determinable are only deviations from a state of health (5.65);<sup>272</sup> all parts of the body are composed again of subtle structures; these are innumerable due to the minuteness of the atoms; vāta is the agent causing the conjunction (saṃyoga) and disjunction (vibhāga) of atoms (5.66); the bodily state may lead to bondage (bandha) or to final release (mokṣa) (5.67); knowledge of the parts of the body furthers the avoidance of anything unhealthy (5.68).

Chapter six (sirāvibhāga) corresponds to the second part of the aṅgavibhāga chapter of the *Hṛdaya* (Śā.3), but is more elaborate.

The subjects are: the ten chief sirās (mūlasirā) which, coming from the heart, transport ojas; they divide several times into branches with a thickness of two aṅgula, one aṅgula, half an aṅgula, a yava, and half a yava respectively, until their number amounts to seven hundred (6.2);<sup>273</sup> four hundred of them are found in the extremities; sixteen of these should not be used in phlebotomy;<sup>274</sup> 136 sirās are present in the trunk; thirty-two of these should not be used in phlebotomy; 164 sirās are in the part above (the trunk); fifty of these should be spared in phlebotomy<sup>275</sup> (6.3); one hundred sirās are present in each leg; the sirā called jālandharā and three internal ones should be avoided in bloodletting (6.4);<sup>276</sup> the pelvic region (śroṇi) possesses thirty-two sirās; eight of these should be spared: two in each groin and two in each kaṭīkataruṇa;<sup>277</sup> the sides of the chest have sixteen sirās; the two running upwards should be spared;<sup>278</sup> twenty-four are present in the back; two sirās on each side of the backbone should be spared;<sup>279</sup> the abdomen has twenty-four sirās as well; four of them should not be cut: two above the penis and two on the sides of the romārājī;<sup>280</sup> forty sirās are found in the anterior part of the chest; fourteen are to be avoided in bloodletting: two in the cardiac region, two in each stanamūla and stanarohita, one in each apastambha and apālāpa<sup>281</sup> (6.5); twenty-four sirās are present in the neck;<sup>282</sup> a group of four and a group of eight which are marmans, and two in the kṛkātīkās and vidhuras, should be avoided, thus making a total of sixteen;<sup>283</sup> the region of the jaw possesses sixteen sirās;<sup>284</sup> two of them, in the region of the articulation, should be spared;<sup>285</sup> the tongue has sixteen sirās;<sup>286</sup> four of these should be spared: two which carry taste,<sup>287</sup> and two which carry speech;<sup>288</sup> twenty-four sirās are found in the nasal region;<sup>289</sup> two of these, which carry smell,<sup>290</sup> should not be touched,<sup>291</sup> as well as one in the palate;<sup>292</sup> fifty-six sirās are present in the eyes; six of these should not be touched by the knife: the two in each eye which are associated with the opening (unmeṣa) and closing (nimeṣa) of the eyes, and the one in each eye at the outer corner;<sup>293</sup> among the sixty sirās in the forehead four which run along the hair-line (keśāntānugata), the two in the āvartas and the one in the sthapanī

are to be spared;<sup>294</sup> among the sixteen sirās in the ears the two which transport sound should not be cut;<sup>295</sup> the region of the temples also possesses sixteen sirās;<sup>296</sup> the two at the joints of the temple should be spared;<sup>297</sup> eight sirās should not be cut among the twelve present on the head: one in each of the two utkṣepas, one in each one of the (five) śimantas, and one in the adhipati;<sup>298</sup> not to be touched by the knife are, moreover, those sirās which are very small, crooked, forming a tangled mass, knotty, or located near to joints (6.6);<sup>299</sup> one quarter of the total number of sirās, i.e., a number of 175, transport blood mixed with vāta; equal numbers carry blood mixed with pitta, blood mixed with kapha, and pure blood; thus, the doṣas support the body (6.7);<sup>300</sup> the characteristics of these four types of sirās and of the mixed types (6.8);<sup>301</sup> the twenty-four vessels called dhamanī; similes illustrating their function;<sup>302</sup> the dhamanīs surround the navel like the spokes of a wheel the navel;<sup>303</sup> the prāṇas have their particular seat in the umbilical region,<sup>304</sup> where the internal fire is located too (6.9); ten dhamanīs run upwards, ten downwards, and four obliquely (6.10);<sup>305</sup> those running upwards, which depart from the heart, divide into thirty branches; vāta, pitta, kapha, blood and rasa are transported by two of these each; eight branches carry sound, form, taste and smell; two branches are connected with speaking, making inarticulate sounds (ghoṣa), sleeping, and waking up respectively; two branches transport tears; two branches carry milk in women and seed in men (6.11);<sup>306</sup> those running downwards, which are connected with the pakvāśaya,<sup>307</sup> also divide into thirty branches; ten of these transport, like those running upwards, vāta, etc.; two branches transport food,<sup>308</sup> two water, two urine; two branches carry semen and two release it; four similar vessels carry and release ārtava in women; two branches, connected with the large bowel, help to expel faeces; the remaining eight transport sweat (6.12);<sup>309</sup> the branches which run obliquely divide many times, as already described (6.13);<sup>310</sup> the channels (srotas) are nine in number in males: the ears, eyes, nostrils, mouth, anus and urethra; females have three additional ones: the breasts and the vagina; thirteen more groups of channels in the interior of the body, which are seats of life (jīvitāyatana), transport prāṇa, water, food, dhātus, and malas (6.14);<sup>311</sup> heart and mahāsrotas<sup>312</sup> are the roots of the prāṇa-carrying channels; the factors leading to corruption of these channels; signs resulting from this corruption; its treatment is like that of śvāsa (6.15);<sup>313</sup> palate and kloman are the roots of the water-carrying channels;<sup>314</sup> the causes and signs of their corruption, to be treated like tṛṣṇā (6.16); āmāśaya and the left side of the chest are the roots of the food-carrying channels;<sup>315</sup> everything concerning their corruption is to be found in the mātṛāśīṭya chapter (Sū.11)<sup>316</sup> (6.17);<sup>317</sup> the roots of the rasa-carrying channels are the heart and the ten dhamanīs;<sup>318</sup> the roots of the blood-carrying channels are liver and spleen;<sup>319</sup> those of the channels carrying muscular tissue are the snāvas and the skin;<sup>320</sup> those of the channels carrying fatty tissue (medas) are the kidneys and the muscles;<sup>321</sup> the roots of the channels carrying bony tissue consist of the buttocks (jaghana) and the fatty tissue (medas);<sup>322</sup> those of the channels carrying bone marrow consist of the joints (parvan) and bones;<sup>323</sup> the roots of the channels carrying seed (śukra) are the breasts, the testicles and the bone marrow;<sup>324</sup> those of the channels carrying urine are the bladder and the groins (vaṅkṣaṇa);<sup>325</sup> those of the channels carrying faeces are the pakvāśaya and large bowel (sthūlāntṛa);<sup>326</sup> those of the channels carrying perspiration

consist of fatty tissue and the pores of the hairs;<sup>327</sup> all these channels may become corrupted by unhealthy dietary habits and patterns of behaviour;<sup>328</sup> the symptoms arising are those of decrease and increase, discussed, together with therapeutic measures, in the doṣādivijñānīya chapter (Sū. 19)<sup>329</sup> (6.18); the disorders arising when channels are pierced; their dangerous nature compels the physician to treat patients only after warning them about the risks; after extraction of a foreign body that has pierced a channel, the treatment required is the same as that of a fresh wound (6.19);<sup>330</sup> sirās and dhamanīs are particular types of channels; others hold that these three form different structures; they have in common that they are located near to each other, perform similar, though diverse functions, and are of a subtle nature (6.20);<sup>331</sup> others again are of the opinion that srotas, sirā, dhamanī, rasavāhinī, nāḍī, path, ayana, mārga, śarīracchidra, saṁvṛtā-saṁvṛta, sthāna, āśaya, kṣaya and niketa are names for visible and invisible structures consisting of spaces (avakāśa) within the bodily constituents (dhātu) (6.21);<sup>332</sup> these spaces, when excited, make the bodily elements, whether fixed or in movement, excited; excited bodily elements bring about excitation of the channels; (excited) channels (cause excitation of) other channels, (excited) bodily elements (excitation of other) bodily elements; corruption of all these (constituents) is brought about by corrupted doṣas;<sup>333</sup> their corruption usually results from a disorder of the fire (agnidoṣa); for this reason, the life span, health, strength, nutritional state (upacaya), colour of the skin, and (the condition of) ojas, are based on this (fire); associated (pratibaddha) with this (digestive fire) are rājaka (pitta), etc., the fires of the (mahā)bhūtas, and the fires of the bodily elements; food, digested by that (digestive fire), leads to immortality; when remaining undigested, it becomes poison (6.22);<sup>334</sup> the kind of pitta called pācaka is identical with the (digestive) fire, as has been stated already;<sup>335</sup> other authorities claim that the inner heat (antarūṣman), generated by the concerted action (saṁnipāta) of doṣas, dhātus and malas, constitutes the fire, with a seat and action as taught (6.23);<sup>336</sup> the internal fire cooks the mass of food, which is brought to the koṣṭha by the prāṇa, divided into smaller parts by fluids, and made soft by fatty substances; this fire is kindled by the samāna (6.24);<sup>337</sup> the food, which contains all the tastes at first, becomes, when being digested, sweet, excites kapha, and becomes frothy; then, partially digested (vidagdha) and having become sour, it moves on from the āmāśaya and excites pitta; having reached the pakvāśaya and become pungent, it excites vāta (6.25);<sup>338</sup> subsequently, the fires of the five mahābhūtas cook those parts of the food, which belong to each of them; after completion of this process, these parts nourish those constituents of the body which derive from each of the mahābhūtas (6.26);<sup>339</sup> after completion of the digestive process, the food consists of a pure part (sāra), called rasa, and an impure part (mala), called kiṭṭa;<sup>340</sup> the channels transport rasa and kiṭṭa, not yet separated from each other (avicchinnasamṛtāna), to the bodily elements, thus replenishing them; each type of channel carries the substance proper to it, i.e., the rasa-transporting channels bring rasa to the rasadhātu; the part that remains nourishes the blood; then, the muscular tissues are replenished by their own channels, etc.;<sup>341</sup> thus, the dhātus maintain their proper measure, dependent on age and bodily build (6.27); the rasa derived from the food, dispersed by the vyāna, and cooked by the fires of the bodily elements, loses its characteristics (svātmabhāvavicyuti), thus changing into blood, etc.; in this way, it

bestows ūrjas on the body and nourishes the bodily elements and impurities (6.28); the clear part of the *kiṭṭa* of the food becomes urine, the dense part becomes faeces; the pure part of *rasa* becomes blood, the impure part phlegm and *lasikā*; the pure part of blood changes into muscular tissue, *kaṇḍarās* and *sirās*, the impure part into bile; the pure part of muscular tissue changes into *medas*, skin and *vasā*, the impure part into the impurities of ears, eyes, nose, mouth, pores of the skin, and generative organs; the pure part of fatty tissue (*medas*) changes into bones, *snāyus* and joints, the impure part into sweat; the pure part of bony tissue changes into bone marrow, the impure part into the hairs of head and body and the nails; the pure part of bone marrow changes into seed, the impure part into the secretions from the eyes and the fatty substance (*sneha*) of the layers of the skin; the pure part of seed changes into *ojas*; because of its great purity, seed does not contain impure matter; some authorities assert that seed, on account of this purity, is not transformed; others again hold that the pure part of seed develops into an embryo (6.29);<sup>342</sup> *vāta* distributes all the products derived from the food throughout the body (6.30); another theory claims that the *rasa* derived from the food nourishes directly each of the bodily elements, without the process of transformation of each element into the next one of the series (6.31);<sup>343</sup> the four types of digestive fire are: *sama*, *viṣama*, *tikṣṇa* and *manda*; increase of a *tikṣṇa* fire leads to the type called *atyagni*; the characteristic features of a sluggish (*manda*) fire and the disorders it produces; the importance of maintaining a proper digestive fire;<sup>344</sup> the means to achieve this aim are discussed in the chapter called *doṣopakramaṇīya* (Sū.21) and that on the treatment of *grahaṇīroga* (6.32).

A.s.Śā.6.33–36 = A.h.Śā.3.43–46.

A.s.Śā.6.37 = A.h.Śā.3.65cd–66ab.

A.s.Śā.6.38 = A.h.Śā.3.67.

A.s.Śā.6.39 = A.h.Śā.3.63cd–64ab.

A.s.Śā.6.40 = A.h.Śā.3.73.

The last verse (6.41) stresses again the importance of protecting one's bodily fire.

Chapter seven (*marmavibhāga*), on the vulnerable spots called *marma*, corresponds to the chapter of the same title (Śā.4) of the *Hṛdaya*.

The subjects discussed are: the number of *marmans* is 107; forty-four are found in the extremities, twenty-six in the trunk, thirty-seven in the part above (the trunk) (7.2); descriptions of the *marmans* in the leg up to the knee and the disorders resulting from injuries to them: the *talahrdaya*,<sup>345</sup> *kṣipra*,<sup>346</sup> *kūrca*,<sup>347</sup> *kūrcaśiras*,<sup>348</sup> *gulpha*,<sup>349</sup> *indrabasti*,<sup>350</sup> and *jānu*,<sup>351</sup> (knee) (7.3); the *marmans* in the thigh: the *āṇi*,<sup>352</sup> *urvī*,<sup>353</sup> *lohitākṣa*,<sup>354</sup> and *viṭapa*,<sup>355</sup> the *marmans* in the arms correspond to those of the legs; the *gulpha* corresponds to the *maṇibandha* (wrist), the *jānu* to the *kūrpara* (elbow), the *viṭapa* to the *kaṣṭhādhara*,<sup>356</sup> injury to these leads to *kunītā* (crookedness)<sup>357</sup> (7.4); the *marmans* of the trunk: *guda* (ano-rectal region),<sup>358</sup> *basti* (urinary bladder),<sup>359</sup> *nābhi* (navel)<sup>360</sup> (7.5), *hṛdaya* (heart),<sup>361</sup> two *stanamūlas*,<sup>362</sup> two *stanarohitas*,<sup>363</sup> two *apastambhas*,<sup>364</sup> two *apālāpas*,<sup>365</sup> (7.6),<sup>366</sup> two *kaṭīkataruṇas*,<sup>367</sup> two *kukundaras*,<sup>368</sup> two *nitambas*,<sup>369</sup> (buttocks), two *pārśvasandhis*,<sup>370</sup> (7.7), two *br̥hatīṣ*,<sup>371</sup> two *aṇṣaphalakas*,<sup>372</sup> two *aṇṣas*,<sup>373</sup> (7.8),<sup>374</sup> the *marmans* above the trunk: four *dhamanīṣ*,<sup>375</sup>

in the neck: two called *nīlā* and two called *manyā*,<sup>376</sup> the four *sirāmātrkāś*,<sup>377</sup> two *krkātikāś*,<sup>378</sup> two *vidhuras*,<sup>379</sup> two *phaṇas*,<sup>380</sup> two *apāṅgas*,<sup>381</sup> two *śaṅkhas*,<sup>382</sup> two *āvartas*<sup>383</sup> (7.9), two *utkṣepas*,<sup>384</sup> the *sthaṇaṇī*,<sup>385</sup> five *sīmantas*,<sup>386</sup> four *śṛṅgātakas*,<sup>387</sup> and the *adhipati*<sup>388</sup> (7.10); the general characteristics of injury to a *marman* (7.11);<sup>389</sup> the disorders arising (7.12); *marmans* are called thus because (injury to them) leads to death (*maranākāritva*); *marmans* are aggregates (*saṃnipāta*) of muscular tissue, *sirās*, *snāvas*, bones and joints;<sup>390</sup> injury results in damage (*ābādha*) to the *prāṇas*; the *marmans* are classified according to the type of structure prevailing (7.13);<sup>391</sup> the eleven *māṃsamarmans*,<sup>392</sup> forty-one *sirāmarmans*,<sup>393</sup> twenty-seven *snāvamarmans*,<sup>394</sup> eight *asthimarmans*,<sup>395</sup> and twenty *sandhimarmans*<sup>396</sup> (7.14); the nineteen *marmans* of the *sadyahprāṇahara* group; injury to them leads to death within a week (7.15);<sup>397</sup> the thirty-three *marmans* of the *kālāntaraprāṇahara* group; injury will have its effects within half a lunar month;<sup>398</sup> injury to a *kṣipra* may quickly be fatal (7.16); the three *marmans* of the *viśalyaghna* group;<sup>399</sup> someone with an injury to one of these will remain alive as long as air does not escape from the wound (7.17);<sup>400</sup> the forty-four *marmans* of the *vaikalyakara* group; injury is sometimes fatal (7.18);<sup>401</sup> the eight *marmans* of the *rujākara* group (7.19);<sup>402</sup> some authorities assert that injuries which affect all five structures forming part of a *marman* are *sadyahprāṇahara*, while those affecting four of them are *kālāntaraprāṇahara*, etc. (7.20);<sup>403</sup> others again do not accept the usual classifications of the *marmans*, insisting that *svabhāva* is the only determining factor with regard to the effects of an injury; in favour of this view they point to the fact that amputation of (part of) a limb, in spite of the presence of many *marmans* in it, is not fatal (7.21); still others explain this fact by arguing that, after amputation of a hand or foot, the *sirās* contract, thus leading to an only slight loss of blood and the preservation of life; injury to a *marman*, however, leads to much loss of blood, resulting in disorders of *vāta*, and, finally, death;<sup>404</sup> therefore, when a *marman* in a particular limb is injured, this limb should be amputated at the nearest (proximal) joint;<sup>405</sup> serious injury to a *marman* of a particular type necessitates placing this *marman* in a higher group; the reverse holds good in slight injuries (7.22);<sup>406</sup> *marmans* are also divided into five groups by another criterion, namely their dimensions; *urvī*, *kūrcaśiras*, *viṭapa* and *kaṭṭhādharā* measure one *āṅgula*,<sup>407</sup> *gulpha*, *maṇibandha* and *stanamūla* two *āṅgula*, *jānu* and *kūrpara* three *āṅgula*; *kūrca*, *guda*, *basti*, *nābhi*, *hṛdaya*, the *nīlās*, *manyās* and *mātrkāś*, the *sīmantas* and *śṛṅgātakas* are as large as the palm of the hand; the remaining ones have the extent of an *āṅguladala*;<sup>408</sup> other authorities hold that the *kṣipras* have the size of a grain of *vṛthi* rice, the *stanarohitas* and *utkṣepas* the size of a *kalāya*, and others the size of a *sesamum* grain<sup>409</sup> (7.23).

The last part of the chapter, in verse, deals with the importance of protecting one's *āyus*, because injuries to the *marmans* are life-threatening (7.24–25), the disorders following upon injury to a *marman* (7.26–27), the danger of excessive loss of blood (7.28–29), and the duty of a physician to treat people with such injuries, after warning them for the risks involved (7.30).

Chapter eight (*prakṛtibhedīya*), corresponding to part of the *āṅgavibhāga* chapter (Śā.3) of the *Hṛdaya*, deals with: the seven types of *prakṛti* (constitution), dominated



by one, a combination of two, or all three doṣas; the doṣa or doṣas present in excess during pregnancy, due to the diet and behaviour of the mother, and due to the nature of male seed and ārtava, determine one's constitution from birth until death; the action of the doṣa(s) on one's constitution is compared to that of poison in poisonous animals (8.2);<sup>410</sup> the effects of the constitution on one's physiology are explained; the doṣa characterizing the constitutional make-up of a person does not hurt him or her, and antagonistic articles, behaviours, etc., are well tolerated; morbid changes of a doṣa, however, will affect a foetus and kill or deform it (8.3);<sup>411</sup> others declare that doṣas are prākṛta or vaikṛta; prākṛtadoṣas, present from birth onwards, determine the seven types of constitution, sustain the body, and do not change during life; doṣas subject to changes are called vaikṛta (8.4); these vaikṛtadoṣas mix with the prākṛtadoṣas, thus corrupting them; similarly, the para type of ojas, staying in the heart and measuring eight drops (bindu), which constitutes the substrate (āḍbāra) of the ojas deriving from the rasa and measuring a praṣṭa, will be corrupted (8.5); descriptions, first in prose, then in verse, of the constitutions dominated by vāta (8.6–8),<sup>412</sup> pitta (8.9–11),<sup>413</sup> and kapha (8.12–14);<sup>414</sup> a saṃsargaprakṛti is dominated by two doṣas; in someone with a samadoṣaprakṛti the doṣas are equally well developed;<sup>415</sup> persons with one of the first three constitutions described, and in particular those with a constitution dominated by two doṣas, are considered to be essentially perpetually sick (nityātura),<sup>416</sup> but are called healthy in every-day language, just like hunger and thirst are normal phenomena; they are in need of the treatments outlined in the doṣopakramaṇīya chapter (Sū.21); those with a balanced constitution should take into consideration the rules regarding sātmya during the various seasons (8.15); there are also seven types of prakṛti which are distinguished according to the degree of dominance of sattva, etc.; śauca, etc., are their characteristics (8.16);<sup>417</sup> seven more types of prakṛti may be distinguished in relation to jāti,<sup>418</sup> kula (family lineage),<sup>419</sup> deśa (type of country inhabited), kāla, vayas (age), bala (strength), and ātmasaṃśraya (individual characteristics) (8.17); the types according to sattva, etc., which affect both mind and body, are, due to their gradations (taratamayoga), innumerable (8.18); they develop after birth in relation to impressions from activities (abhyāsavāsanā), and are dispositions (anūka), called after deities, pretas, animals, etc. (8.19);<sup>420</sup> the stages of the human life cycle: bāla, madhya, vṛddha; the stage called bāla lasts sixteen years; madhya lasts from sixteen to sixty years;<sup>421</sup> after the age of sixty, vṛddha begins; hāla is subdivided into stanyavṛtti (living on breastmilk), āhāravṛtti (living on solid food) and ubhayavṛtti (living on both kinds of food);<sup>422</sup> the characteristics of bāla;<sup>423</sup> kapha predominates in this stage<sup>424</sup> (8.20); madhya is subdivided into yauvana, saṃpūrṇatva and aparīhāni;<sup>425</sup> pitta predominates during the madhya stage;<sup>426</sup> its general characteristics;<sup>427</sup> yauvana lasts until the age of thirty;<sup>428</sup> the characteristics of saṃpūrṇatva, lasting up to forty years;<sup>429</sup> aparīhāni is not characterized<sup>430</sup> (8.21); the characteristics of vṛddhi, with vāta as the prevailing doṣa (8.22); others divide the life cycle into ten periods of ten years; each of these decads is characterized by the loss of a particular feature; these features consist of: bālya (childhood), vṛddhi (growth), prabhā, medhā, tvac, śukra, keenness of eyesight, sharpness of hearing, manas (mental faculties), and all the faculties of the senses<sup>431</sup> (8.23); the maximum

life span is one hundred years in this (Kali) age; some people, due to their karman, approach this age or live even longer; generally, the life span depends on one's prakṛti (8.24);<sup>432</sup> the gradual reduction of the span of life in the course of the ages of the world (8.25); the three types of strength (bala): sahaja, kālākṛta and yuktikṛta; the sahaja type, which is prākṛta, depends on one's sattva and body type; the kālākṛta strength is associated with season and age; the yuktikṛta type derives from one's diet, behaviour, and use of ūrjaskara preparations (8.26);<sup>433</sup> there are eight types of sāra: tvak-, rakta-, māmśa-, medaḥ-, asthi-, majja-, śukra-, and sattvasāra; their excellence increases in the mentioned order; the degree of strength can be deduced from the type of sāra (8.27);<sup>434</sup> the characteristics of someone possessing all the eight sāras; the opposite type; the intermediate type (8.28);<sup>435</sup> the measurements in aṅgulas of many parts of the body: first and second toes are two aṅgula long;<sup>436</sup> the three other toes are successively one fifth shorter;<sup>437</sup> prapada,<sup>438</sup> pādātala<sup>439</sup> and pārṣṇī<sup>440</sup> are each four aṅgula long, but respectively six, five and four aṅgula broad; the length and circumference of the foot are fourteen aṅgula;<sup>441</sup> the circumference of the ankle and the middle part of the lower leg is also fourteen aṅgula;<sup>442</sup> the height of the foot is four aṅgula;<sup>443</sup> the lengths of lower leg and thigh are eighteen aṅgula;<sup>444</sup> the knee is four aṅgula long;<sup>445</sup> the circumference of the thigh is thirty aṅgula<sup>446</sup> (8.29); testicles and penis are six aṅgula long; their circumferences are eight, respectively five aṅgula;<sup>447</sup> the breadth of the pelvic region (kaṭi) is sixteen aṅgula,<sup>448</sup> its circumference fifty aṅgula;<sup>449</sup> the bastiśīras measures twelve aṅgula;<sup>450</sup> the udara measures twelve aṅgula;<sup>451</sup> the sides of the chest (pārśva) are ten aṅgula broad and twelve long;<sup>452</sup> the trika is twelve aṅgula high;<sup>453</sup> the back is eighteen aṅgula in height;<sup>454</sup> the space between the nipples (stanāntara) measures twelve aṅgula;<sup>455</sup> the areola around the nipples (stanaparyanta) extends over two aṅgula;<sup>456</sup> the anterior part of the chest is twenty-four aṅgula broad and twelve in length;<sup>457</sup> the heart measures two aṅgula;<sup>458</sup> the skandhas and kakṣās measure eight aṅgula each;<sup>459</sup> the aṅgas measure six aṅgula;<sup>460</sup> the upper arm (prabāhu) measures sixteen, the lower arm (prapāni) fifteen, the hand (pāni) twelve aṅgula;<sup>461</sup> the middle finger (madhyamāṅgula) is five aṅgula long, the index (pradeśinī) and ring finger (anāmikā) are half an aṅgula shorter; little finger (kaniṣṭhikā) and thumb (aṅguṣṭha) measure three aṅgula and a half;<sup>462</sup> the neck is four aṅgula long, while its circumference is twenty-two aṅgula;<sup>463</sup> the face (ānana) is twelve aṅgula long, while its circumference is twenty-four aṅgula<sup>464</sup> (8.30); the mouth (āśya) measures five aṅgula;<sup>465</sup> chin (cibuka), lip, nose, interpupillary region (dr̥ṣṭyāntara), ear and forehead measure four aṅgula each;<sup>466</sup> the frontier between the wings of the nose (nāsāpuṭamaryādā)<sup>467</sup> is one third of an aṅgula broad;<sup>468</sup> the eye is two aṅgula deep (āyata) and as broad as the ball (udara) of the thumb;<sup>469</sup> the black part measures one third of the white part;<sup>470</sup> the dr̥ṣṭi measures one ninth of the black part<sup>471</sup> and is as large as the half of a lentil;<sup>472</sup> the head is six aṅgula high, while its circumference is thirty-two aṅgula;<sup>473</sup> the total length of the human body is eighty-four aṅgula;<sup>474</sup> the proportions are as they should be (sama) when length and breadth are equal (āyāmavistārasama);<sup>475</sup> measures which are larger are desirable, smaller measures undesirable;<sup>476</sup> the same criteria are applicable to other general features (8.31);<sup>477</sup> desirable bodily characteristics (8.32).<sup>478</sup>

A.s.Śā.8.33–34 = A.h.Śā.3.115–116.

A.s.Śā.8.35–36 = A.h.Śā.3.119–120.

Chapter nine (vikṛtīvijñāniya) corresponds to part of the chapter of the same title (Śā.5) of the *Hṛdaya*.

The subjects discussed are: the definition of a riṣṭa as a change of one own's natural state (svabhāvaviparyāsa) that occurs without any apparent reason (akasmāt) (9.2); the natural colours of the skin: gaura, śyāma, kṛṣṇa, gauraśyāma and kṛṣṇaśyāma;<sup>479</sup> subdivisions are padmagaura, etc.;<sup>480</sup> abnormal colours are nīlaśyāma, tāmra, hāridra, śukla, etc.;<sup>481</sup> the occurrence of both natural and unnatural colours points to approaching death;<sup>482</sup> changes in the features mentioned in the prakṛtibhediya chapter (Śā.8) and in the chapters on the doṣas (Sū. 19–20) have the same meaning<sup>483</sup> (9.3); the chāyā is of five types: related to ākāśa, air, fire, water and earth; their characteristics;<sup>484</sup> the chāyā related to air is productive of afflictions and death, the other types lead to a happy life<sup>485</sup> (9.4); the seven colours of prabhā; auspicious and inauspicious characteristics of prabhā (9.5);<sup>486</sup> the distinctive characters of varṇa, chāyā and prabhā (9.6);<sup>487</sup> death will approach when one's reflection (praticchāyāmāyī kumārīkā) will not be visible in someone's pupil (9.7);<sup>488</sup> signs foreboding death (riṣṭa) relating to one's praticchāyā (reflection);<sup>489</sup> riṣṭas relating to the head,<sup>490</sup> eyes,<sup>491</sup> eyelids,<sup>492</sup> nose<sup>493</sup> (9.8); riṣṭas relating to the lips,<sup>494</sup> teeth,<sup>495</sup> tongue,<sup>496</sup> some parts of the head, the head,<sup>497</sup> jaw,<sup>498</sup> generative organs,<sup>499</sup> pores of the hairs,<sup>500</sup> the limbs in general<sup>501</sup> (9.9), the voice, respiration,<sup>502</sup> etc.<sup>503</sup> (9.10).

The chapter ends with riṣṭas in verse:

A.s.Śā.9.11–15 = A.h.Śā.5.14cd–19ab.

A.s.Śā.9.16 = A.h.Śā.5.20cd–21ab.

A.s.Śā.9.17–18 = A.h.Śā.5.28–29.

A.s.Śā.9.19–20 = A.h.Śā.5.39cd–41ab.

A.s.Śā.9.21 = A.h.Śā.5.121cd–122ab.

A.s.Śā.9.22 = A.h.Śā.5.27.

The last verse of the chapter (9.23) describes a riṣṭa relating to an abnormal chāyā.

Chapter ten (vikṛtebhāvijñāniya) corresponds to part of the vikṛtīvijñāniya chapter (Śā.5) of the *Hṛdaya*

A.s.Śā.10.2–10 = A.h.Śā.5.30–38ab.

A.s.Śā.10.11 is added.

A.s.Śā.10.12–28 = A.h.Śā.5.53cd–70ab.

A.s.Śā.10.29–30 = A.h.Śā.5.129–130.

A.s.Śā.10.31 = A.h.Śā.5.2.

(An unspecified number of) the preceding verses are said to be from Caraka.<sup>504</sup> The opinion expressed in the next verse is attributed to Suśruta: although a riṣṭa points to certain death, pure brāhmaṇas may prevent this issue by means of rasāyana, tapas and gifts (dāna)<sup>505</sup> (10.32cd–33ab).

Kṛṣṇātreyā is referred to as an authority who distinguished sthira (stable) and asthira (unstable) riṣṭas; the latter type may disappear, even when the doṣas are

present in abundance; this presence of *riṣṭas* which are not fatal is called *riṣṭābhāsa* (10.33cd–34).<sup>506</sup>

A.s.Śā.10.34 = A.h.Śā.5.3cd–4ab.

A.s.Śā.10.35 = A.h.Śā.5.131.

Chapter eleven (*vikṛṭavyādhivijñānīya*), which corresponds to part of Śā.5 of the *Hṛdaya*, begins with a long series of signs, described in prose, that announce a fatal outcome (11.2). It continues with verses describing symptoms which, when added to the usual ones of a particular disease, may be interpreted as premonitory of death.

A.s.Śā.11.3–28 = A.h.Śā.5.71cd–96.

A verse on *ariṣṭas* in *udara* is added (11.29).

A.s.Śā.11.30–56 = A.h.Śā.5.97–120ab.

A.s.Śā.11.57–64 = A.h.Śā.5.121cd–128.

Chapter twelve (*dūtādivijñānīya*) corresponds to the chapter of the same title (Śā.6) of the *Hṛdaya*.

The subjects dealt with are: the topics to be discussed in this chapter: the messenger (*dūta*) sent to the physician; occurrences on the way of the physician from his own house to that of the patient, and those when entering the patient's house; auspicious and inauspicious dreams (12.2); a long list of characteristics regarded as inauspicious (*aśubha*) in a messenger (12.3);<sup>507</sup> another list of both inauspicious and auspicious characteristics (12.4);<sup>508</sup> the next list refers to the 108 *maṅgala* things which, by seeing, touching or mentioning them, confer success upon the physician; numerous items are named<sup>509</sup> (12.5);<sup>510</sup> auspicious and inauspicious omens relating to animals seen on the way to the patient's house and on entering it (12.6);<sup>511</sup> auspicious and inauspicious sounds (12.7);<sup>512</sup> sounds prohibiting treatment of the patient (12.8); more signs with the same meaning (12.9);<sup>513</sup> yet another list of these signs which apply on entering the patient's house or leaving it (12.10);<sup>514</sup> signs relating to the patient and meaning that treatment should not be attempted (12.11);<sup>515</sup> dreams dreamt by the patient himself and dreams of other persons<sup>516</sup> may be auspicious or inauspicious; the seven kinds of dreams; the first five kinds have no consequences (*aphala*); the same applies to dreams in agreement with one's constitution, dreams which are not remembered, dreams occurring during day sleep, and dreams during a too short, too long or too deep sleep (12.12); dreams occurring during the first part of the night have a slight effect that is produced after a long time, but those seen towards daybreak have a great effect, produced within a short time, as well as dreams resulting in loss of sleep in spite of soothing words and religious observances (12.13);<sup>517</sup> dreams announcing a particular disease (12.14);<sup>518</sup> a long series of inauspicious dreams (12.15).<sup>519</sup>

A.s.Śā.12.16 = A.h.Śā.6.59cd–60ab.

A.s.Śā.12.17–23 = A.h.Śā.6.64cd–71ab.

Auspicious and inauspicious dreams about forefathers, deities and twice-born are mentioned in two verses (12.24–25), followed by prescriptions for rituals to be observed in order to get rid of the bad effects of dreams<sup>520</sup> (12.26).

A.s.Śā.12.27–29 = A.h.Śā.6.71cd–74.

## Chapter 3

### Nidānasthāna

Chapter one (sarvaroganidāna) corresponds to the chapter of the same title (Ni.1) of the *Hṛdaya*.

The chapter opens with a description of the life of human beings during the Kṛtayuga (1.2); a general decline occurred in the subsequent ages of the world, resulting in the appearance of fever and all the other diseases (1.3).<sup>1</sup>

A mythic story is told about the origin of fever. Paśupati's<sup>2</sup> wrath had been provoked for not having got his share at a sacrifice (kratu).<sup>3</sup> After having kept his temper for a thousand divine years, he abandoned his self-control, on the instigation of (his spouse), Rudrānī, who had been insulted during a former existence. The fire of his anger (roṣāgni) came out of his head in the form of a servant (kiṃkara), in order to destroy the sacrifice. This servant's name was Vīrabhadra; ashes were his weapon; he had three heads, a black body, fangs, pointed ears, etc.; together with him, there appeared Bhadrakālī,<sup>4</sup> fashioned by Devī,<sup>5</sup> and a host of attendants, with frightening looks, as innumerable as the pores of the hairs. With a voice, resounding everywhere, intent on destruction of the Dānavas and the aśvamedha sacrifice,<sup>6</sup> Vīrabhadra addressed Śiva, praising him and asking for his orders. Śiva ordered him to annihilate Dakṣa's sacrifice and to pervade the whole world with fever, the foremost of the diseases, consisting of general heat, of the nature of tamas and mahāmoha, making human beings forget their former existences, etc.<sup>7</sup> Under several names it will roam on the earth; it will be called pākala in elephants, abhitāpa in horses, alarka in dogs, indramada in aquatic animals, jyotis in herbs, cūrṇaka in grain, nīlikā in water, ūṣara in soil, and fever (jvara) in human beings<sup>8</sup> (1.4).

Disorders connected with fever as to their origins are discussed next. Together with fever arose (the diseases called) arocaka, aṅgamarda, śirovyathā (headache), bhrama, klama, glāni, tṛṣṇā (thirst), saṃtāpa (a general sense of heat), etc.; raktapitta developed out of saṃtāpa;<sup>9</sup> the agitation of the living beings fleeing (from Vīrabhadra) gave rise to gulma, vidradhi, vṛddhi, jaṭhara (= udara), etc.; the consumption of havis (anything offered as an oblation with fire) led to meha, kuṣṭha, arśas, śopha, atisāra, etc.; fear, grief, etc., were the causes of unmāda, apasmāra, (attacks of) grahas, etc.; the attachment of the lunar deity (nakṣatrarāja)<sup>10</sup> to Rohiṇī made Prajāpati angry; the latter let him be afflicted by rājayakṣman and the accompanying disorders like kāsa, śvāsa, etc. The whole host of diseases does not appear without fever and may therefore be called by the samenames (1.5).

The next subjects are: the synonyms of fever;<sup>11</sup> the etymology of roga; knowledge of a disease arises by means of its nidāna, pūrvarūpa, rūpa, upaśaya and saṃprāpti<sup>12</sup>

(1.6); nidāna consists of the excitement of vāta, etc., caused by the indulgence in unwholesome diet and behaviour; synonyms of nidāna<sup>13</sup> (1.7); the definition of pūrvārūpa (1.8);<sup>14</sup> the definition of rūpa; its synonyms (1.9);<sup>15</sup> the definitions of upaśaya and anupaśaya (1.10);<sup>16</sup> the definition of samprāpti;<sup>17</sup> its synonyms<sup>18</sup> (1.11);<sup>19</sup> types of samprāpti (1.12);<sup>20</sup> factors leading to excitement of vāta (1.13), pitta (1.14), kapha (1.15);<sup>21</sup> a mixture of these factors leads to excitement of two or three doṣas;<sup>22</sup> a list of additional factors causing excitement of all three doṣas<sup>23</sup> (1.16).

The chapter ends in verse (1.17–31).

A.s.Ni.1.18 = A.h.Ni.1.23cd–24.

A disease appearing during the constellation (nakṣatra)<sup>24</sup> of one's conception (ādhāna) or birth (janman), or during those called nidhana,<sup>25</sup> pratyara<sup>26</sup> and vipatkara,<sup>27</sup> will lead to suffering or death (1.19). The duration of a fever depends on the constellation governing the time of its first appearance; it will cease after six days when it became manifest during the Aśvinī,<sup>28</sup> after five days during the Bharanī,<sup>29</sup> after a week or three weeks during the Kṛttikā,<sup>30</sup> after eight or eleven days during Rohiṇī,<sup>31</sup> after six or nine days during Mṛga<sup>32</sup> (1.20–21); when arisen during Ārdrā,<sup>33</sup> it will lead to death within five days, or the outcome will be doubtful after a lapse of three halves of a lunar month (tripakṣa); a fever beginning during Punarvasu<sup>34</sup> leaves off after thirteen days (1.22); a fever beginning during Puṣya<sup>35</sup> ceases after twenty-seven, two or seven days; a fever occurring during the Śleṣā<sup>36</sup> is fatal, even after a long time, but when a fever arises during the Maghā,<sup>37</sup> it will disappear if one is still alive after twelve days; one will die on the eighth day when the fever occurs during the two Phālgunī<sup>38</sup> (1.23–24); occurring during Hasta,<sup>39</sup> a fever will cool down on the ninth or twenty-first day; the same will happen on the seventh or eighth day when it arises during Citrā<sup>40</sup> (1.25), on the tenth day or after three halves of a lunar month when it arises during Svāti<sup>41</sup> on the arrival of Citrā; beginning during the Viśākhā,<sup>42</sup> however, it is fatal on the twenty-second day (1.26); it is also fatal when, appeared during Maitra,<sup>43</sup> it has not become pacified on the ninth day; arisen during Jyēṣṭhā,<sup>44</sup> it kills on the fifth day or disappears on the twelfth (1.27); a fever beginning during Mūla<sup>45</sup> will cease after ten days or three weeks; when it has begun during the Pūrvaśādhā,<sup>46</sup> it will do so on the ninth day, but after a month, eight months or nine months when it appeared during the other Āśādhā;<sup>47</sup> arisen during the Dhaniṣṭhā,<sup>48</sup> it will cease before the day of Jyēṣṭhā; it will do so on the twelfth day when arisen during the Vāruṇa<sup>49</sup> (1.28–29); appeared during the Uttarabhādrapadā,<sup>50</sup> it will lead to death on the sixth or twelfth day; when it occurred during the Revatī<sup>51</sup> it will disappear after three weeks, four or eight days. Thus says Gautama<sup>52</sup> (1.30–31).

Chapter two (jvaranidāna) deals with the eight kinds of fever: caused by a single doṣa, a combination of two doṣas, and concerted action of all three doṣas (2.2);<sup>53</sup> the pathogenesis of fever, described more elaborately than in the *Hṛdaya*;<sup>54</sup> the ūṣman of the doṣas is referred to,<sup>55</sup> pitta is said to damage, like hot water, the digestive fire by its fluidity, and all the senses are described as being afflicted by heat (2.3);<sup>56</sup> the prodromes of fever (2.4).<sup>57</sup>

A.s.Ni.2.5–30 = A.h.Ni.2.10cd–33.

A saṃnipāta fever is described in which the eyes assume a yellow (hāridra) colour (2.31–32ab).

A.s.Ni.2.32cd–50 = A.h.Ni.2.34–50.

Reasons are given for the fact that a natural (prākṛta) fever by vāta is difficult to cure (2.51).

A.s.Ni.2.52–67 = A.h.Ni.2.51–64.

A.s.Ni.2.68 is a variant of A.h.Ni.2.65ab.

The general pathophysiology and characteristics of irregular fevers (viṣamajvara) are discussed, illustrated by comparisons;<sup>58</sup> their main characteristics are that they bring about a general sense of glowing heat at distinct periods (vicchinnaśaṃtāpa), and that they are irregular as to their beginning, action and time of appearance (2.69–76).<sup>59</sup>

A.s.Ni.2.77–78 = A.h.Ni.2.65cd–67ab.

A fever with longer intervals than caturthaka (quartan fever) does not occur because, on the fifth day, the doṣas have become very diluted (līna) and sluggish (2.79).

A.s.Ni.2.80–85ab = A.h.Ni.2.69cd–73ab.

The reasons for the fact that caturthaka is difficult to cure are given (2.85cd–86).

A.s.Ni.2.87–88 = A.h.Ni.2.73cd–75ab.

The symptoms of irregular fevers with doṣas staying in one of the seven bodily elements are described (2.89–94);<sup>60</sup> their degrees of curability are added (2.95ab).<sup>61</sup>

The clinical features of the fevers called pralepaka (2.95cd–96ab),<sup>62</sup> vātabalāsaka (2.96cd–97ab),<sup>63</sup> hāridraka (2.97cd–98ab),<sup>64</sup> rātrika (2.98cd–99ab),<sup>65</sup> and pūrvarātrika<sup>66</sup> (2.99cd–100ab). A fever that makes one half of the body feel cold and the other half warm (2.100cd–101ab), and a fever characterized by a warm trunk and cold limbs (2.101cd–102).<sup>67</sup>

A.s.Ni.2.103–106 = A.h.Ni.2.76cd–79.

Chapter three (raktapittakāśanidāna) agrees with the corresponding chapter (Ni.3) of the *Hṛdaya*.

A.s.Ni.3.2–21c = A.h.Ni.3.1–19a.

The aetiology and pathogenesis of cough (kāsa) are different (3.22–27) from what the *Hṛdaya* presents (Ni.3.19b–21ab).

A.s.Ni.3.28–45 = A.h.Ni.3.21cd–38.

Chapters four (śvāsahidhmānidāna), five (rājayakṣmānidāna) and six (madātyayānidāna) are identical with the corresponding ones (Ni.4–6) of the *Hṛdaya*.

Chapter seven (arśasāṃ nidānam), corresponding to the chapter of the same title (Ni.7) of the *Hṛdaya*, is partly in prose (7.1–13), partly in verse (7.14–27).

The subjects dealt with are the same as in the *Hṛdaya*.

A.s.Ni.7.2 corresponds to A.h.Ni.7.1–5, 7.3 to A.h.Ni.7.6–7, 7.4 to A.h.Ni.7.8, 7.5 to A.h.Ni.7.9, 7.6 to A.h.Ni.7.10–15c, 7.7 to A.h.Ni.7.15cd–20, 7.8 to A.h.Ni.7.21–22, 7.9 to A.h.Ni.7.23–28ab, 7.10 to A.h.Ni.7.28cd–34ab, 7.11 to A.h.Ni.7.34cd–37ab, 7.

12 to A.h.Ni.7.37cd-42, 7.13 to A.h.Ni.7.43-45.

A.s.Ni.7.14-27 = A.h.Ni.7.46-59.

Chapter eight (atīsāragrahaṇīdoṣanidāna) is identical with the corresponding chapter (Ni.8) of the *Hṛdaya*.

Chapter nine (mūtrāghātanidāna) corresponds to the chapter of the same title (Ni.9) of the *Hṛdaya*, but is in prose, one verse at the end excepted.

The chapter begins with an enumeration of the twenty types of mūtrāghāta: (mūtra)kṛcchra due to vāta, pitta, kapha, and all three doṣas together; aśmarī due to vāta, pitta, kapha and śukra; vātabasti, aṣṭhīlā, kuṇḍalikā, mūtrātīta, (mūtra)jathara, utsaṅga, granthī, (mūtra)śukra, vidvighāta, uṣṇavāta, mūtrakṣaya, and avasāda<sup>68</sup> (9.2). Vātabasti and the eight disorders which follow it have a predominance of vāta; uṣṇavāta and mūtrakṣaya have a predominance of vāta and pitta, while avasāda is characterized by a predominance of kapha and pitta (9.3).<sup>69</sup>

The physiology of urine formation is described next.<sup>70</sup> When the doṣas corrupt the channels transporting urine, they generate the various types of āghāta and prameha<sup>71</sup> (9.4).

The remaining part of the chapter deals with: the symptoms of each of the four types of mūtrakṛcchra (9.5);<sup>72</sup> the pathogenesis<sup>73</sup> and prodromes of aśmarī (9.6);<sup>74</sup> the general symptoms of aśmarī (9.7);<sup>75</sup> the specific symptoms of aśmarī due to vāta, pitta, kapha;<sup>76</sup> these three types occur in children too<sup>77</sup> (9.8); the pathogenesis and symptoms of śukrāśmarī (9.9);<sup>78</sup> the characteristic features of śarkarā (urinary gravel) (9.10);<sup>79</sup> the characteristics of vātabasti (9.11), vātāṣṭhīlā, vātakuṇḍalikā, mūtrātīta (9.12), mūtrajathara, mūtrotsaṅga, mūtragranthī (9.13), mūtraśukra, vidvighāta, uṣṇavāta, mūtrakṣaya, and mūtravasāda (9.14).

A.s.Ni.9.15 = A.h.Ni.9.40.

Chapter ten (pramehanidāna) corresponds to the chapter of the same title of the *Hṛdaya* (Ni.10), but is in prose, apart from four verses at the end.

The subjects are: the twenty types of prameha; ten types are due to kapha: udaka-, iṅṣu-, sāndra-, surā-, piṣṭa-, śukra-, sikatā-, śīta-, śanair-, and lālāprameha; six are due to pitta: kṣāra-, kāla-, nīla-, hāridra-, māñjiṣṭha-, and śoṇitameha; four are due to vāta: vasā-, majja-, hasti-, and madhumeha (10.2);<sup>80</sup> the pathogenesis of prameha, described in a more detailed way than in the *Hṛdaya* (10.3-4);<sup>81</sup> the degrees of curability of the three groups of prameha and the reasons for these differences (10.5);<sup>82</sup> the general symptoms of prameha; the distinctions arise from the specific characteristics of doṣa(s) involved and dūṣya(s) affected (10.6);<sup>83</sup> the prodromes (10.7);<sup>84</sup> the characteristic features of udakameha, iṅsumeha, sāndrameha, surāmeha, piṣṭameha, śukrameha, sikatāmeha, śītameha, śanairmeha, lālāmeha, kṣārameha, kālameha, nīlameha, hāridrameha, māñjiṣṭhameha, śoṇitameha, vasāmeha, majjameha, and hastimeha (10.8);<sup>85</sup> the pathogenesis of madhumeha; the two types of this disorder, distinguished by some authorities;<sup>86</sup> when neglected, all types of prameha develop into madhumeha;



for this reason, all kinds of meha may be designated as madhumeha<sup>87</sup> (10.9); the complications of prameha due to kapha, pitta, vāta (10.10);<sup>88</sup> the pathogenesis of the pramehapiṭakās, described more in detail than in the *Hṛdaya*;<sup>89</sup> these ten piṭakās are: śarāvikā, kacchapikā, jālinī, putriṇī, vidārikā, sarṣapikā, masūrikā, alajī, vinatā, and vidradhi (10.11); the characteristics of śarāvikā, etc., up to vinatā; vidradhi will be described separately (10.12);<sup>90</sup> the first five of the piṭakās are hard to endure (duḥsaha), because they arise from a very strong kapha and medas, have the same set of symptoms as the primary disease (mūlavyādhī), and make that disease increase; the other piṭakās are less severe on account of the abundance of pitta and the slight degree to which kapha and medas are involved; the doṣa predominating in piṭakās is the same as that of the type of prameha present (10.13).<sup>91</sup>

A.s.Ni.10.14–17 = A.h.Ni.10.36cd–37 and 40–41.

Chapter eleven (vidradhivṛddhigulmanidāna) corresponds to the chapter of the same title (Ni.11) of the *Hṛdaya*.

A.s.Ni.11.1–34 = A.h.Ni.11, introductory prose, 1–33ab.

The main part of the section on gulma (11.35–42) is in prose. It deals with: the aetiology and pathogenesis of gulma, accompanied by śūla (10.35);<sup>92</sup> the doṣas in gulma;<sup>93</sup> the five seats of gulma: urinary bladder, umbilical region, the two sides of the chest, and the cardiac region;<sup>94</sup> the prodromes<sup>95</sup> (10.36); the symptoms of gulma due to vāta (10.37),<sup>96</sup> pitta (10.38),<sup>97</sup> kapha,<sup>98</sup> two doṣas,<sup>99</sup> and all three doṣas<sup>100</sup> (10.39); the reasons for the fact that raktagulma occurs in women only (10.40); the aetiology of this disorder and its symptoms; vāta and pitta are mainly involved; the differences between raktagulma and pregnancy (10.41);<sup>101</sup> the differences between gulma and vidradhi (10.42).<sup>102</sup>

A.s.Ni.11.43–47 = A.h.Ni.11.58–62.

Chapters twelve (udaranidāna), thirteen (pāṇḍuśophavisarpanidāna), fourteen (kuṣṭhaśvitrakṛmidāna), fifteen (vātavyādhinidāna) and sixteen (vātaśoṇitanidāna) are identical with the corresponding chapters (Ni.12–16) of the *Hṛdaya*.

## Chapter 4 Cikitsitasthāna

Chapter one (jvaracikitsita), in verse, corresponds to the first part of the chapter of the same title of the *Hṛdaya* (Ci.1.1–83).

A.s.Ci.1.1–27 = A.h.Ci.1, introduction and 1–26ab.

Two verses on the medicinal properties of peyās are added (1.28–30).<sup>1</sup>

A.s.Ci.1.31–40 = A.h.Ci.1.26cd–36ab.

A.s.Ci.1.41–42 is an enlarged version of A.h.Ci.1.36cd–37ab.

A.s.Ci.1.43–47ab = A.h.Ci.1.37cd–41.

One verse and a half are added on the bad effects of a kaṣāya when administered too early (1.47cd–48).<sup>2</sup>

A.s.Ci.1.49–54 = A.h.Ci.1.42–47.

A.s.Ci.1.55 gives an additional prescription for the treatment of an āma fever.

A.s.Ci.1.56–59 = A.h.Ci.1.51cd–55ab.

A.s.Ci.1.60–62 = A.h.Ci.1.48–51ab.

Additional material deals with five more kaṣāyas (1.63–65),<sup>3</sup> nine prescriptions against vāta fevers (1.66–71),<sup>4</sup> prescriptions against pitta fevers (1.72–76),<sup>5</sup> kapha fevers (1.77–80ab),<sup>6</sup> and fevers due to a combination of doṣas (1.80cd–82).

A.s.Ci.1.83–85 = A.h.Ci.1.55cd–58.

A.h.Ci.1.59 is absent from the *Samgraha*.

A.s.Ci.1.86–91 = A.h.Ci.1.60–65ab.

Two recipes are added (1.92–93).<sup>7</sup>

A.s.Ci.1.94 = A.h.Ci.1.65cd–66ab.

The next recipe (1.95–97ab) is longer than the corresponding one of the *Hṛdaya* (1.66cd–67ab).

A.s.Ci.1.97cd–107 = A.h.Ci.1.67cd–79ab.

A.s.Ci.1.108–109 = A.h.Ci.1.81cd–83.

A.s.Ci.1.110–111 = A.h.Ci.1.79cd–81ab.

Chapter two (jīrṇajvaracikitsita) deals with the same subjects as the second half of the chapter on the treatment of fevers (Ci.1.84–177) of the *Hṛdaya*.

A.s.Ci.2.1–7 = A.h.Ci.1.84–89.

A.s.Ci.2.8–21 takes the place of A.h.Ci.1.90–93 and describes a number of medicated ghees.<sup>8</sup>

A.s.Ci.2.22–25 = A.h.Ci.1.94–98.

An extra verse is devoted to the treatment of a fever arising from saṃtarpaṇa (2.26).

A.s.Ci.2.27–28ab = A.h.Ci.1.99–100ab.

A.s.Ci.2.28cd = A.h.Ci.1.100ef.

A.s.Ci.2.28ef is added.

A.s.Ci.2.29ab = A.h.Ci.1.100cd.

A.s.Ci.2.29cd is added.

A.s.Ci.2.30 = A.h.Ci.1.101.

A.s.Ci.2.31a–d is an addition.

A.s.Ci.2.31ef–51 = A.h.Ci.1.102ab–122.

Four additional verses (2.52–55) describe two extra clysters.<sup>9</sup>

A.s.Ci.2.56–57 = A.h.Ci.1.123–124.

A.s.Ci.2.58 enlarges upon A.h.Ci.1.125ab.

A.s.Ci.2.59–65 = A.h.Ci.1.125cd–132.

A medicated oil is added (2.66).

A.s.Ci.2.67–68 = A.h.Ci.1.133–135ab.

Additional verses (2.69–76ab) describe two plasters, an electuary, and some emetics.<sup>10</sup>

A.s.Ci.2.76c–f = A.h.Ci.1.136.

Some extra verses (2.77–80) are about measures against the burning sensation in fever.<sup>11</sup>

A.s.Ci.2.81–86 = A.h.Ci.1.137–142.

Some additional verses (2.87–89ab) describe cooling plasters.

A.s.Ci.2.89cd–90 = A.h.Ci.1.143–144ab.

An extra ardhaśloka (2.91ab) mentions that the measures described remove vāta and kapha.

A.s.Ci.2.91cd–93ab = A.h.Ci.1.144cd–146ab.

Two additional verses (2.93cd–95ab) deal with measures against shivering in fever patients.

A.s.Ci.2.95cd–96 = A.h.Ci.1.146cd–147.

A series of extra verses are concerned with the treatment of ānāha in fevers (2.97–98ab), a persistent feeling of coldness in fevers with a predominance of vāta and kapha (2.98cd–101), feelings of coldness or a burning sensation (2.102), general measures to be adopted in fevers due to kapha, pitta or vāta (2.103),<sup>12</sup> and due to a combination of two or three doṣas (2.104).<sup>13</sup>

A.s.Ci.2.105 = A.h.Ci.1.148.

An extra verse (2.106) is about the treatment of excessive sleepiness as a dangerous complication of fever.

A.s.Ci.2.107–114 = A.h.Ci.1.149–156.

Three additional verses (2.115–117) contain some more prescriptions against irregular fevers.<sup>14</sup>

A.s.Ci.2.118 = A.h.Ci.1.157.

An extra verse (2.119) gives a recipe against irregular fevers.<sup>15</sup>

A.s.Ci.2.120–122 = A.h.Ci.1.158–160.

Additional prescriptions are given which are useful on the day of arrival of a new bout of an irregular fever (2.123–124ab).<sup>16</sup>

A.s.Ci.2.124cd–127 = A.h.Ci.1.161–164ab.

An extra verse (2.128) contains a recipe against all kinds of fever.

A.s.Ci.2.129–130 = A.h.Ci.1.164cd–166ab.

Two additional verses (2.131–132) are about the treatment of irregular fevers staying in a particular element of the body and about the treatment of vāta fever.<sup>17</sup>

A.s.Ci.2.133–137 = A.h.Ci.1.166cd–172.

An extra verse (2.138) recommends to distract the patient by telling constructive and agreeable stories.

A.s.Ci.2.139ab = A.h.Ci.1.173ab.

A.s.Ci.2.139cd–141 = A.h.Ci.1.174–176.

An ardhasloka (2.142ab) is added.

A.s.Ci.2.142cd = A.h.Ci.1.173cd.

The next verse (2.143) deals with religious prescriptions, as does the last stanza of the *Hṛdaya*. Its contents conform to the Hindu dharma; worship of brāhmaṇas, Hara and Hari is recommended.

The stanza that follows (2.144) says that, in order to be released from fever, one should pay obeisance to Āryāvalokita, Parīśabarī, Aparājita, and Āryatārā. The last verse (2.145) declares that muttering (japa) of the mantra called tathāgatoṣṇīṣa cures all diseases, fever included.

Chapter three (raktapittacikitsita) corresponds to the chapter of the same title (Ci.2) of the *Hṛdaya*.

A.s.Ci.3.1–9 = A.h.Ci.2, introduction and 1–9ab.

An additional verse (3.10) is about drugs to be used for purgative purposes (vireka).<sup>18</sup>

A.s.Ci.3.11–14ab = A.h.Ci.2.9cd–12.

A.s.Ci.3.14cd enlarges upon the subject of A.h.Ci.2.14ab.

A.s.Ci.3.15–20ab = A.h.Ci.2.13–18ab.

A.s.Ci.3.20cd–22ab replaces A.h.Ci.2.18cd–20, without adding new material.

A.s.Ci.3.22cd–24ab = A.h.Ci.2.21–22.

A.s.Ci.3.24cd–26 gives additional prescriptions.

A.s.Ci.3.27–28ab = A.h.Ci.2.23–24ab.

A.s.Ci.3.28cd–29ab contains additional prescriptions.

A.s.Ci.3.29cd–31 = A.h.Ci.2.24cd–26.

A number of added verses (3.32–39ab) consist of recipes.<sup>19</sup>

A.s.Ci.3.39cd–41ab = A.h.Ci.2.27–28.

A.s.Ci.3.41cd–42 = A.h.Ci.2.30–31ab.

A.s.Ci.3.43–46 contains additional prescriptions.

A.s.Ci.3.47–48 = A.h.Ci.2.31cd–33ab.

A.s.Ci.3.49–50 gives additional prescriptions.<sup>20</sup>

A.s.Ci.3.51–52ab = A.h.Ci.2.33cd–34.

A.s.Ci.3.52cd–54 gives additional prescriptions.<sup>21</sup>

A.s.Ci.3.55–58ab = A.h.Ci.2.35–38ab.

An ardhasloka (3.58cd) is added.

A.s.Ci.3.59–65ab = A.h.Ci.2.38cd–45ab.

A.s.Ci.3.65cd–66 contains additional prescriptions.

A.s.Ci.3.67 = A.h.Ci.2.45cd–46ab.<sup>22</sup>

A.s.Ci.3.68–70 consists of additional prescriptions.<sup>23</sup>

A.s.Ci.3.71ab = A.h.Ci.2.47ab.

A.s.Ci.3.71cd–77 contains additional prescriptions.<sup>24</sup>

A.s.Ci.3.78–80 = A.h.Ci.2.47cd–50.

Chapter four (kāśacikitsita) corresponds to the first part of the chapter of the same title (Ci.3.1–72) of the *Hṛdaya*.

A.s.Ci.4.1–6 = A.h.Ci.3, introduction and 1–6ab.

Some extra verses (4.7–10ab) deal with a recipe.

A.s.Ci.4.10cd–29 = A.h.Ci.3.6cd–28.

Additional verses (4.30–32) describe five electuaries.<sup>25</sup>

A.s.Ci.4.33–35 = A.h.Ci.3.29–32ab.

Two additional verses (4.36–37) give two recipes.<sup>26</sup>

A.s.Ci.4.38–42 = A.h.Ci.3.32cd–38ab.

A.s.Ci.4.43–45 describes thick medicated ghees, to be used in the same way as electuaries.

A.s.Ci.4.46–53 = A.h.Ci.3.38cd–46ab.

Two extra verses (4.54–55) add four electuaries to the three of the *Hṛdaya*.<sup>27</sup>

A.s.Ci.4.56–59 = A.h.Ci.3.46cd–50ab.

A.s.Ci.4.60ab = A.h.Ci.3.51ab.<sup>28</sup>

A.s.Ci.4.60cd–61 gives additional prescriptions.

A.s.Ci.4.62 = A.h.Ci.3.51cd–52ab.<sup>29</sup>

A.s.Ci.4.63 replaces A.h.Ci.3.52cd–53ab.

A.s.Ci.4.64–66ab = A.h.Ci.3.53cd–55.

A.s.Ci.4.66cd–67ab contains an additional prescription.<sup>30</sup>

A.s.Ci.4.67cd–74 = A.h.Ci.3.56–62.

A prescription (4.75–77ab) replaces A.h.Ci.3.63ab.

A.s.Ci.4.77cd–81ab = A.h.Ci.3.63cd–67ab.

A.s.Ci.4.81cd–83 gives additional recipes.

A.s.Ci.4.84–86 = A.h.Ci.3.67cd–69.

A.s.Ci.4.87–90 describes additional recipes.<sup>31</sup>

A.s.Ci.4.91–93 = A.h.Ci.3.70–72.

Chapter five (kṣataḥṣayakāśacikitsita) corresponds to the second part of the chapter on kāśacikitsita (Ci.3.73–180) of the *Hṛdaya*.

A.s.Ci.5.2–12 = A.h.Ci.3.73–83.

A.s.Ci.5.13ab adds a prescription against haemoptysis.

A.s.Ci.5.13cd–15ab = A.h.Ci.3.84–85.

Some extra verses (5.15cd–18ab) describe an electuary.<sup>32</sup>

A.s.Ci.5.18cd–26 = A.h.Ci.3.86–94ab.

An additional verse (5.27) deals with a medicated ghee.

A.s.Ci.5.28–45 = A.h.Ci.3.94cd–113.

A long series of additional verses describe sarpirguḍas (5.46–54) and a modaka (5.55–60).<sup>33</sup>

A.s.Ci.5.61–72 = A.h.Ci.3.114–125.

Extra verses (5.73–77) deal with yūṣas and a mantha.

A.s.Ci.5.78–117 = A.h.Ci.3.126–167ab.

A.h.Ci.3.167cd–169ab is absent from the *Samgraha*.

A.s.Ci.5.118–120ab = A.h.Ci.3.169cd–171.

Some additional electuaries are described (5.120cd–123).<sup>34</sup>

A.s.Ci.5.124–127 = A.h.Ci.3.172–175.

Two extra verses are about a peyā (5.128–129).<sup>35</sup>

A.s.Ci.5.130–134 = A.h.Ci.3.176–180.

Chapter six (śvāsahidhmāciksita) deals with the same subjects as the chapter of the same title of the *Hṛdaya* (Ci.4).

A.s.Ci.6.1–32ab = A.h.Ci.4, introduction and 1–31.

A.s.Ci.6.32cd–35ab replaces A.h.Ci.4.32.

A.s.Ci.6.35cd–42ab = A.h.Ci.4.33–39.

Some additional stanzas enlarge upon a prescription (6.42cd) and give a supplementary one (6.43–44).<sup>36</sup>

A.s.Ci.6.45–46 = A.h.Ci.4.40–41.

Additional verses (6.47–48ab) give the recipes of electuaries.

A.s.Ci.6.48cd–52ab = A.h.Ci.4.42–45.

Extra verses (4.52cd–55ab) describe electuaries.

A.s.Ci.6.55cd–57 = A.h.Ci.4.46–48ab.

An ardhaśloka is added (6.58ab).

A.s.Ci.6.58cd–65ab = A.h.Ci.4.48cd–55ab.

Extra verses (6.65cd–69cd) deal with some medicated ghees.<sup>37</sup>

A.s.Ci.6.69ef–71 = A.h.Ci.4.56–58ab.

An additional verse (6.72) is about exceptions to the rules mentioned in the preceding verse.<sup>38</sup>

A.s.Ci.6.73–74 = A.h.Ci.4.58cd–60.

Chapter seven (rājayakṣmaciksita) corresponds to the chapter of the same title (Ci.5) of the *Hṛdaya*.

A.s.Ci.7.1–12 = A.h.Ci.5, introduction and 1–11.

Additional verses (7.13–18ab) describe a preparation called candrakānta and a rāga.

A.s.Ci.7.18cd–23 = A.h.Ci.5.12–17.

The recipe of a medicated ghee is added (7.24–27).<sup>39</sup>

A.s.Ci.7.28–36 = A.h.Ci.5.18–27.

Additional verses describe pārāśaragṛta (7.37–38) and other medicated ghees (7.39–43).<sup>40</sup>

A.s.Ci.7.44–48 = A.h.Ci.5.28–33ab.

Five electuaries are added (7.49–51).<sup>41</sup>

A.s.Ci.7.52ab = A.h.Ci.5.33cd.

A.s.Ci.7.52cd–53 replaces A.h.Ci.5.34.

A.s.Ci.7.54–61 = A.h.Ci.5.35–43ab.

An extra verse (7.62) supplements the preceding recipe and recommends cutting a vein in the forehead when the treatment is not successful.

A.s.Ci.7.63–72 = A.h.Ci.5.43cd–53.

Additional verses deal with a mouthwash (mukhadhāvana) (7.73), four gargles (kavalagraha) (7.74–76), and another preparation of the same kind (7.77).

A.s.Ci.7.78–84ab = A.h.Ci.5.54–60.

Some extra verses (7.84cd–86) describe a modaka.<sup>42</sup>

A.s.Ci.7.87–92 = A.h.Ci.5.61–66.

A.s.Ci.7.93ab replaces A.h.Ci.5.67ab.

A.s.Ci.7.93cd–94ab = A.h.Ci.5.67cd–68ab.

A.s.Ci.7.94cd–96 replaces A.h.Ci.5.68cd.

A.s.Ci.7.97–99cd = A.h.Ci.5.69–73ab.

A series of prescriptions are added (7.99ef–104).<sup>43</sup>

A.s.Ci.7.105 = A.h.Ci.5.73cd–74ab.

Extra verses are about the serious nature of rājyakṣman (7.106) and a rasāyana method of treatment (7.107–109ab).<sup>44</sup>

A.s.Ci.7.109cd–118 = A.h.Ci.5.74cd–84.

The last verse (7.119) recommends the purohita to perform the iṣṭi that overcame the rājyakṣman of Candra (the moon god).<sup>45</sup>

Chapter eight (chardihṛdrogaṭṭṛṇāciksita) corresponds to the chapter of the same title (Ci.6) of the *Hṛdaya*

A.s.Ci.8.1–16ab = A.h.Ci.6, introduction and 1–16.

An ardhaśloka (8.16cd) is added.

A.s.Ci.8.17ab = A.h.Ci.6.17ab.

Some prescriptions against vomiting are added (8.17cd–19).

A.s.Ci.8.20–21ab = A.h.Ci.6.17cd–18.

An ardhaśloka is added (8.21cd).

A.s.Ci.8.22–23 = A.h.Ci.6.19–20.

A.s.Ci.8.24–25ab replaces A.h.Ci.6.21.

A.s.Ci.8.25cd–26 = A.h.Ci.6.22–23ab.

A.s.Ci.8.27–30 replaces, in śloka, the two verses in indravajrā and upajāti metre (Ci.6.23–24) of the *Hṛdaya*

A.s.Ci.8.31–45 = A.h.Ci.6.25–41ab.<sup>46</sup>

A prescription (8.46–48) is added.

A.s.Ci.8.49–72ab = A.h.Ci.6.41cd–66ab.

An ardhaśloka is added (8.72cd).

A.s.Ci.8.73–77 = A.h.Ci.6.66cd–71.

A prescription is added (8.78).

A.s.Ci.8.79–91 = A.h.Ci.6.72–85.

Chapter nine (madātyayacikitsita) corresponds to the madātyayādicikitsita chapter (Ci. 7) of the *Hṛdaya*.

A.s.Ci.9.1–31 = A.h.Ci.7, introduction and 1–32.

Additional verses deal with remedial measures against a burning sensation (dāha); these measures consist of: bāhya- and antaḥparimāṛjana (9.32), remembering the trees of the Malaya mountains (9.33),<sup>47</sup> various cooling objects (9.34–36),<sup>48</sup> remembering the river Sindhu with its herds of elephants (9.37), listening to stories about rivers, ponds, etc. (9.38),<sup>49</sup> and cooling drugs (9.39–40).

A.s.Ci.9.41 replaces A.h.Ci.7.33ab; 9.42–43 replaces A.h.Ci.7.33cd–34ab.

A.s.Ci.9.44–49 = A.h.Ci.7.34cd–41.

Three extra verses (9.50–52) deal with preparations of the type called rāga.<sup>50</sup>

A.s.Ci.9.53–56 = A.h.Ci.7.42–46ab.

Three additional verses (9.57–59) describe a drink of the type called pānaka.

A.s.Ci.9.60 = A.h.Ci.7.46cd–47ab.

An extra verse (9.61) recommends honouring the shoots of the wishing tree (kalpadruma) of dharma and the five arrows of the bow of the god of love.

A.s.Ci.9.62–128 = A.h.Ci.7.47cd–115.

Chapter ten (arśasāṃ cikitsitam) differs from the corresponding chapter (Ci.8) of the *Hṛdaya* in being mainly in prose.

The subjects covered are: the use of the arśoyantra in inspecting haemorrhoids; the same instrument is used in treating them by means of cauterization and the application of caustics (10.2);<sup>51</sup> large haemorrhoids in strong patients require excision, followed by cauterization;<sup>52</sup> haemorrhoids which look like mushrooms should be ligated with a kṣārasūtra<sup>53</sup> (10.3); after-treatment (10.4);<sup>54</sup> when a remnant is left, cautery should be repeated;<sup>55</sup> in this way, one haemorrhoid should be removed each week;<sup>56</sup> those at the right side should be removed first, subsequently those situated on the left side, posterior side, and anterior side;<sup>57</sup> removal of all the haemorrhoids in one day is regarded as the fault called atiyoga;<sup>58</sup> dry haemorrhoids require treatment with cautery or caustics, moist ones require a mild caustic;<sup>59</sup> the rules mentioned are applicable to all polypous growths (arśas) which may occur at some place of the body;<sup>60</sup> haemorrhoids in the region of the third anal fold (vali) should only be treated after warning the patient, or they should, according to another opinion, not be treated at all<sup>61</sup> (10.5); the signs of proper and improper cauterization (10.6);<sup>62</sup> the treatment of pain in the region of the bladder<sup>63</sup> and retention of urine and faeces (mūtrapurīṣapratīghāta);<sup>64</sup> measures to loosen the bowels (10.7);<sup>65</sup> oleation, etc., should also be applied;<sup>66</sup> other useful measures are to be found in the chapter on the treatment of vranas (10.8);<sup>67</sup> methods for treating haemorrhoids which cannot be managed by means of surgery, caustics or cautery: the application of oils,<sup>68</sup> sudation,<sup>69</sup> fumigation,<sup>70</sup> plasters (pradeha),<sup>71</sup> and oils<sup>72</sup> (10.9); an oil for abhyaṅga of the anal region,<sup>73</sup> followed by sudation and a (sitz)bath;<sup>74</sup> the application of a suppository (varṭi);<sup>75</sup> the frequency and total duration of the described methods of treatment;<sup>76</sup> medicinal substances to be used afterwards<sup>77</sup> (10.10); the preparation of the electuary called harītakīpāka;<sup>78</sup> firm and swollen haemorrhoids which do not bleed require bloodletting (10.11);<sup>79</sup> preparations against weakness of the diges-



tive fire, swelling of the anus, and piercing pain (10.12);<sup>80</sup> other preparations (10.13);<sup>81</sup> more recipes (10.14); preparations with citraka and some other plants (10.15);<sup>82</sup> more preparations (10.16); the importance of preparations containing takra (10.17);<sup>83</sup> medicated alcoholic drinks are useful to those in the habit of consuming liquor (10.18); the formulae called abhayāriṣṭa (10.19),<sup>84</sup> durālabhāriṣṭa (10.20),<sup>85</sup> āmalakāriṣṭa (10.21),<sup>86</sup> and guggulvāsava (10.22);<sup>87</sup> these preparations are useful to those who habitually drink alcoholic beverages; medicated drinks for those not used to alcohol (10.23);<sup>88</sup> the drugs mentioned in the preceding passage may also be employed in preparing peyās, yūṣas, ghees, etc. (10.24);<sup>89</sup> the preparation of karañjaśukta and a more active variant of the same recipe (10.25);<sup>90</sup> the preparation of gaṇḍīrakāñjika (10.26);<sup>91</sup> the treatment of haemorrhoids in patients with dry bowels (rūkṣakoṣṭha); the preparation of pāṭhādighṛta (10.27) and pippalyādighṛta (10.28);<sup>92</sup> constipation accompanying haemorrhoids requires the same treatment as udāvarta, loose stools the same as that of diarrhoea, much bleeding the same as that of raktapitta and raktātisāra (10.29); loss of impure blood ought not to be stopped; treatment of the doṣas involved is necessary (10.30);<sup>93</sup> the treatment of cases with a large amount of kapha (10.31–32)<sup>94</sup> or vāta (10.33);<sup>95</sup> styptic measures (10.34).<sup>96</sup>

A section in verses describes peyās (10.35–37), khalas, sūpas, yūṣas, etc. (10.38–42), meat broths (10.43–45), and various other preparations (10.46–49) against bleeding haemorrhoids.<sup>97</sup>

The chapter continues in prose again. The subjects dealt with are: the treatment of udāvarta as a complication of haemorrhoids (10.50);<sup>98</sup> the formulae of kalyāṇakakṣāra,<sup>99</sup> kāñkāyanakṣāra,<sup>100</sup> and mahākṣāra<sup>101</sup> (10.51); other preparations (10.52); purgatives (10.53);<sup>102</sup> the treatment of constipation and retention of flatus (viḍvātavibandha) (10.54).

The chapter ends with verses giving a summary of the various ways to manage haemorrhoids of different types (10.55–62).<sup>103</sup>

A.s.Ci.10.63 = A.h.Ci.8.164.

Chapter eleven (atīśāracikitsita) differs from the corresponding chapter of the *Hṛdaya* in being mainly in prose.

The chapter begins with general rules for the treatment of diarrhoea (atīśāra) (11.2).<sup>104</sup>

A verse (11.3) teaches that, after the elimination of doṣa remnants, saṃgrahaṇa by means of pācana and stambhana measures is permitted.<sup>105</sup>

The chapter goes on with remedial measures applicable when moderate amounts of doṣa(s) are involved,<sup>106</sup> when āma is accompanied by blood (11.4), and when a small amount of doṣa(s) is present;<sup>107</sup> suitable drinks and foods when the patient is thirsty or hungry (11.5–6);<sup>108</sup> the symptomatology of pravāhikā,<sup>109</sup> also called bimbisī; its treatment is like that of udāvarta (11.7); the treatment of thirst in patients with varcalḥkṣaya;<sup>110</sup> the treatment of bimbisī; three khalakas are described: one khalaka without a name,<sup>111</sup> ajitkhalaka, and aparājītkhalaka<sup>112</sup> (11.8); more prescriptions against pravāhikā (11.9–10);<sup>113</sup> dadhi as a useful substance against bimbisī (11.11);<sup>114</sup> the use of milk, fresh and still warm, and of medicated milk preparations, in cases

of thirst, accompanied by a bloody and slimy diarrhoea (11.12);<sup>115</sup> clysters to be administered when piercing pain is present (11.13); the treatment of a prolapse of the anus (gudabhrāṇṣā) (11.14–15);<sup>116</sup> the treatment of atisāra due to pitta (11.16–22),<sup>117</sup> raktātisāra (bloody diarrhoea) (11.23–26),<sup>118</sup> atisāra due to kapha (11.27);<sup>119</sup> vāta increases in its own seats when kapha is deficient; this condition requires speedy treatment (11.28).<sup>120</sup>

A.s.Ci.11.29–30 = A.h.Ci.9.123–124.

The last few verses (11.31–33) recapitulate the principles of treatment of atisāra.

Chapter twelve (grahaṇīdoṣacikitsita) differs from the corresponding chapter of the *Hṛdaya* (Ci.10) in being partly in prose (12.1–4 and 8–16), partly in verse.

Grahaṇīdoṣa should be treated first like ajīrṇa; the treatment of the latter disorder is discussed in the mātrāṣīṭya chapter (Sū.11); subsequently, it should be treated like atisāra; recipes helpful in digesting āma are mentioned (12.2);<sup>121</sup> more recipes follow, useful in different types of grahaṇī, accompanied by pravāha, śūla, etc. (12.3);<sup>122</sup> suitable articles of diet are listed (12.4).<sup>123</sup>

A.s.Ci.12.5–6 = A.h.Ci.10.4–5.

A verse on takra is added (12.7).<sup>124</sup>

The treatment of grahaṇīdoṣa due to vāta (12.8–10),<sup>125</sup> pitta (12.11–12),<sup>126</sup> kapha (12.13–16),<sup>127</sup> and all three doṣas (12.16)<sup>128</sup> is described.

The remaining part of the chapter is in verse.

A.s.Ci.12.17–20ab = A.h.Ci.10.66–69ab.

A.s.Ci.12.20cd–21 replaces A.h.Ci.10.69cd–71ab.

A.s.Ci.12.22–40 = A.h.Ci.10.71cd–91.

A.s.Ci.12.41 replaces A.h.Ci.10.92–93.

Chapter thirteen (mūtrāṅghātacikitsita) differs from the corresponding chapter of the *Hṛdaya* (Ci.11) in being largely in prose.

The chapter begins with the general treatment of mūtrakṛcchra due to vāta (13.2)<sup>129</sup> and proceeds with a number of prescriptions (13.3);<sup>130</sup> the treatment of mūtrāṅghāta due to pitta (13.4),<sup>131</sup> kapha (13.5),<sup>132</sup> and all three doṣas (13.6)<sup>133</sup> is dealt with next.

Three additional verses (13.7–9) describe recipes against mūtrakṛcchra in general. The section that follows is about aśmarī (vesical calculi).

It begins with the general treatment of cases of recent origin (13.10)<sup>134</sup> and proceeds with the treatment of aśmarī due to vāta (13.11–12),<sup>135</sup> pitta (13.13),<sup>136</sup> and kapha (13.14);<sup>137</sup> the preparation of an electuary against aśmarī (13.15) and a kṣārāvaleha against aśmarī and śarkarā (urinary gravel) (13.16) is described;<sup>138</sup> more recipes follow (13.17–19);<sup>139</sup> measures and recipes effective against all kinds of mūtrāṅghāta and against śukrāśmarī are dealt with (13.20–24).<sup>140</sup>

When all these measures fail, the physician should ask for permission from the king for surgical intervention, because, without use of the knife, the patient faces certain death (13.25–26).<sup>141</sup> The surgical procedure is described, followed by after-treatment and rules to be observed by the patient for a long time after the operation (13.27–31).<sup>142</sup>

The chapter ends with the eight places not to be touched by the knife and the disorders that would follow from injury to these parts (13.32–33).<sup>143</sup>

Chapter fourteen (pramehacikitsita) corresponds to the chapter of the same title of the *Hṛdaya* (Ci.12), but is mainly in prose again.

The chapter begins by stating that, in patients with prameha, prāṇa converts the ingested food into urine and fatty tissue;<sup>144</sup> general therapeutic measures are mentioned (14.2).<sup>145</sup>

Purificatory measures are described (14.3);<sup>146</sup> subsequently, appeasing (śamana) measures are required (14.4);<sup>147</sup> prescriptions useful in all cases of prameha (14.5);<sup>148</sup> four kaṣāyas against prameha due to kapha<sup>149</sup> and five against prameha due to pitta<sup>150</sup> (14.6); recipes useful in udakameha, sikatāmeha, kṣārameha, and śoṇitameha (14.7);<sup>151</sup> the palliative treatment of prameha due to vāta and with an abundance of kapha and pitta;<sup>152</sup> the treatment of vasāmeha, majjameha, hastimeha, and madhumeha<sup>153</sup> (14.8); the treatment of the various kinds of prameha due to vāta with involvement of kapha or pitta as a secondary doṣa (14.9);<sup>154</sup> snehas in the treatment of prameha (14.10–11);<sup>155</sup> oils against all kinds of prameha (14.12);<sup>156</sup> the formula of dhānavantarasarpi (14.13);<sup>157</sup> useful articles of food (14.14);<sup>158</sup> the formulae of lodhrāsava (14.15),<sup>159</sup> daśamūlārīṣṭa (14.16)<sup>160</sup> and lohārīṣṭa (14.17);<sup>161</sup> recipes for patients who object against alcoholic preparations (14.18);<sup>162</sup> more prescriptions (14.19);<sup>163</sup> rules of conduct for patients suffering from prameha (14.20);<sup>164</sup> the treatment of the piṭikās occurring in prameha patients (14.21);<sup>165</sup> more prescriptions against these piṭikās (14.22).<sup>166</sup>

The verses at the end of the chapter deal with an oil for the treatment of piṭakās and related disorders (14.23–25);<sup>167</sup> the urgency of treatment when piṭakās appear (14.26);<sup>168</sup> the serious nature of prameha (14.27).<sup>169</sup>

Chapter fifteen (vidradhivṛddhicikitsita), corresponding to the chapter of the same title of the *Hṛdaya* (Ci.13), is in prose, with some verses at the end.

The subjects dealt with in the first half of the chapter are: the general measures to be adopted in the immature (āma) and mature (pakva) stages of an abscess (vidradhi) (15.2);<sup>170</sup> the treatment of an internal (ābhyantara) abscess (15.3–6);<sup>171</sup> the surgical treatment of a ripe abscess of the koṣṭha (15.7);<sup>172</sup> a ripe internal abscess, with purulent matter flowing out upwards or downwards, should be left untreated for a period of ten days (15.8);<sup>173</sup> when the production of pus is thought to be insufficient, it should be stimulated by the use of particular drinks and gruels; medicated ghees are to be administered after a period of ten days (15.9);<sup>174</sup> after purification of the abscess, tiktakasarpis is recommended;<sup>175</sup> in general, ripening should be prevented; if it occurs nevertheless, one should leave the outcome to fate;<sup>176</sup> an abscess in patients with prameha requires the treatment described for that disease (15.10);<sup>177</sup> the treatment of a mammary abscess (stanavidradhi) (15.11).<sup>178</sup>

The subjects of the second half of the chapter are: the treatment of vṛddhi (enlargement of the scrotum) due to vāta (15.12),<sup>179</sup> pitta (15.13),<sup>180</sup> kapha (15.14),<sup>181</sup> fatty tissue (15.15),<sup>182</sup> and urine (15.16);<sup>183</sup> the treatment of antravṛddhi; the preparation of

sukumārataila and gandharvahastataila (15.17).<sup>184</sup>

A.s.Ci.15.18–21 = A.h.Ci.13.48–51.

Chapter sixteen (gulmacikitsita) corresponds to the chapter of the same title of the *Hṛdaya* (Ci.14), but is almost completely in prose.

The chapter begins with the general therapeutic management of gulma (16.2).<sup>185</sup>

The next subject is the treatment of gulma due to vāta (16.3–18): several prescriptions which are found in other chapters, some additions (16.3),<sup>186</sup> the formulae of hapuśādhīrta,<sup>187</sup> śuṇṭhyādhīrta (16.4), laśunādhīrta<sup>188</sup> (16.5), dādhikasarpis,<sup>189</sup> and another ghee<sup>190</sup> (16.6); treatment with oleation and sudation (16.7);<sup>191</sup> indications for oleation, clysters, etc. (16.8);<sup>192</sup> increase of kapha by these treatments is to be avoided; measures against increased kapha (16.9);<sup>193</sup> prescriptions against śūla occurring in gulma caused by vāta (16.10);<sup>194</sup> more prescriptions against śūla (16.11–13); the formula of kṣārāgāda, attributed to Bhela (16.14);<sup>195</sup> prescriptions against increase of pitta in cases of gulma due to vāta (16.15);<sup>196</sup> prescriptions against constipation (viḍvibandha) in cases of gulma (16.16);<sup>197</sup> recipes against gulma and śūla (16.17); purgative prescriptions; the formula of nīlīñghṛta<sup>198</sup> (16.18).

The chapter proceeds with the treatment of gulma due to pitta (16.19–23)<sup>199</sup> and kapha (16.24–36).<sup>200</sup>

The passages on the treatment of gulma due to kapha describe the preparation of bhallātakaghṛta (16.25);<sup>201</sup> the application of a small jar to the place where the gulma is present and the later removal of this jar (16.26);<sup>202</sup> followed by local pressure and rubbing;<sup>203</sup> oleation, sudation, purgation, etc. (16.27);<sup>204</sup> particular prescriptions: miśrakasneha (16.28–29),<sup>205</sup> dantīhṛtakyavaleha (16.30),<sup>206</sup> purgatives (16.31–33).<sup>207</sup>

A.s.Ci.16.34–35 = A.h.Ci.14.114–115.

The subjects of the last part of the chapter are: the method to be used in cauterization; after-treatment (16.36);<sup>208</sup> the treatment of gulma due to a combination of doṣas can be inferred (16.37);<sup>209</sup> the treatment of gulma due to blood (raktagulma) (16.38–39);<sup>210</sup> the measures to be resorted to when the accumulated blood flows out (16.40);<sup>211</sup> suitable foods and drinks for gulma patients (16.41);<sup>212</sup> the treatment of ānāha (16.42).

The chapter ends with a verse (16.43),<sup>213</sup> stating that gulma increases when the digestive fire is sluggish, while the disorder is alleviated when the fire is duly active.

Chapter seventeen (udaracikitsita) corresponds to the chapter of the same title of the *Hṛdaya* (Ci.15). The major part (17.1–42) is in prose; it ends with a series of verses (17.43–54).

The subjects dealt with are: the general treatment of udara with purgatives (17.2);<sup>214</sup> various prescriptions against udara in general (17.3–8);<sup>215</sup> recipes to be employed in the next stage of treatment, when the patient has gained strength: purgatives (17.9), paṭolādicūrṇa (17.10),<sup>216</sup> mūtravartī (17.11);<sup>217</sup> prescriptions removing remnants of the doṣa(s) left (17.12–13);<sup>218</sup> the treatment of udara in general and udara due to vāta (17.14–21),<sup>219</sup> pitta (17.22–25),<sup>220</sup> kapha (17.26),<sup>221</sup> and all the doṣas (17.27–29);<sup>222</sup> a dangerous treatment with poisonous substances, to be applied only after informing the patient's relatives about the risks involved (17.30); this

procedure will lead to cure or to death (17.31);<sup>223</sup> dietary rules to be observed after this treatment (17.32);<sup>224</sup> the treatment of plīhodara (splenomegalia) and yakṛdudara (swelling of the liver);<sup>225</sup> formulae mentioned and partly described are: śatpalaghṛta, mahāśatpalaghṛta, and rohitakaśatpalaghṛta (17.33–37); the treatment of baddhodara (17.38),<sup>226</sup> chidrodara<sup>227</sup> and dakodara<sup>228</sup> (17.39); the surgical treatment of udara; after-treatment (17.40);<sup>229</sup> the surgical draining of the fluid accumulated in the abdominal cavity in cases of dakodara (17.41); the repetition of this intervention after certain intervals; after-treatment; rules to be observed by the patient (17.42).<sup>230</sup>

A.s.Ci.17.43–54 = A.h.Ci.15.119cd–132.

Chapter eighteen (pāṇḍurogacikitsita), corresponding to the chapter of the same title of the *Hṛdaya* (Ci.16), is partly in prose, partly in verse.

The subjects dealt with are: the treatment of pāṇḍuroga should begin with the administration of kalyāṇaka-,<sup>231</sup> pañcagavya-,<sup>232</sup> tiktakasarpis,<sup>233</sup> or some other medicated ghee;<sup>234</sup> the preparation of dāimādyaghṛta, also useful<sup>235</sup> (18.2); another medicated ghee (18.3);<sup>236</sup> the administration of these ghees has to be followed by oleation, emesis and purgation; recipes (18.4);<sup>237</sup> a cūrṇa (18.5);<sup>238</sup> a recipe for vaṭakas;<sup>239</sup> the formula of navāyasacūrṇa (18.6);<sup>240</sup> another recipe for vaṭakas (18.7);<sup>241</sup> the recipe for the pills (guṭikā) called yogarāja (18.8);<sup>242</sup> the recipes for vajravāṭakas (18.9)<sup>243</sup> and drākṣāleha (18.10);<sup>244</sup> foods and drinks suitable in pāṇḍuroga due to vāta, pitta, kapha (18.11);<sup>245</sup> the recipes of bījakasārāriṣṭa (18.12), gaṇḍīrāriṣṭa (18.13) and mastvāriṣṭa (18.14).<sup>246</sup>

A.s.Ci.18.15ab corresponds to A.h.Ci.16.33ab.

A.s.Ci.18.15cd–22 = A.h.Ci.16.33cd–41ab.

A number of prescriptions are added (18.23–27).

A.s.Ci.18.28–29cd = A.h.Ci.16.41cd–43ab.

A.s.Ci.18.29ef is an addition.

A.s.Ci.18.30 = A.h.Ci.16.43cd–44ab.

A.h.Ci.16.44cd is absent from the *Samgraha*.

A.s.Ci.18.31–42 = A.h.Ci.16.45–57.

Chapter nineteen (śvayathucikitsita) corresponds to the chapter of the same title of the *Hṛdaya*, but is in prose, except for a few verses at the end.

The subjects dealt with are: the treatment of śvayathu affecting the whole body (19.2–9);<sup>247</sup> the treatment of ekāṅga śvayathu, affecting one limb only (19.10–11);<sup>248</sup> the treatment of śvayathu due to vāta (19.12),<sup>249</sup> pitta (19.13),<sup>250</sup> kapha (19.14–15),<sup>251</sup> and a combination of doṣas (19.16).<sup>252</sup>

The treatment of śvayathu due to a trauma (abhigḥāta) and to a poison is discussed in a verse (19.17), different from that found in the *Hṛdaya*.<sup>253</sup>

A.s.Ci.19.18 = A.h.Ci.17.42.

Chapter twenty (visarpa cikitsita) corresponds to the chapter of the same title of the *Hṛdaya* (Ci.18), but is in prose, except for two verses at the end.

The subjects dealt with are: the treatment of visarpa during the prodromal stage (20.





the other bodily elements (23.11),<sup>296</sup> the treatment to be applied when vāta affects an unborn or young child (23.12),<sup>297</sup> and when vāta stays in sirās, snāvas, or junctures (23.13);<sup>298</sup> cases of apātānaka to be treated quickly (23.14);<sup>299</sup> treatments for apātānaka (23.15–22);<sup>300</sup> the treatment of antarāyāma and bahirāyāma (23.23).<sup>301</sup>

A.s.Ci.23.24–25 = A.h.Ci.21.39–40.

The subjects discussed next are: the treatment of the two types (vivṛtāśya and saṃvṛtāśya) of hanustambha (23.26);<sup>302</sup> the treatment of jihvāstambha<sup>303</sup> and ekāyāma<sup>304</sup> (23.27); the preparation of aṇutaila (23.28);<sup>305</sup> the preparation of a sahasrapāka, respectively śatapāka oil, to be employed accompanied by magical and religious acts (23.29);<sup>306</sup> various measures useful in ekāṅgaroga, avabāhuka,<sup>307</sup> viśvabhī, etc. (23.30); the treatment of ūrustambha (23.31);<sup>308</sup> the treatment of ūrustambha and other vāta diseases (23.32–33).<sup>309</sup>

A.s.Ci.23.34–39 = A.h.Ci.21.56–61.

The preparation of an oil is added (23.40–42).

A.s.Ci.23.43–44ab = A.h.Ci.21.62–63ab.

A.s.Ci.23.44cd differs from A.h.Ci.21.63cd.

A.s.Ci.23.45 = A.h.Ci.21.64.

The preparation of prasāriṇītaila, described next in the *Hṛdaya* (21.65–66), is found later in this chapter in the *Samgraha*.

A.s.Ci.23.46–48 = A.h.Ci.21.67–69.

The formulae of ketakītaila (23.49), laṣunataila (23.50–54)<sup>310</sup> and prasāriṇītaila (23.55–56).<sup>311</sup>

A second saḥacārataila<sup>312</sup> is described (23.57–60).<sup>313</sup>

A.s.Ci.23.61 is an addition to the description of balātaila.

A.s.Ci.23.62–69 = A.h.Ci.21.73cd–81 (balātaila).

Some more oils are described: abhayātaila (23.70–76ab), rāsnāditaila,<sup>314</sup> other, similarly prepared oils (23.76g–h),<sup>315</sup> mūlakataila<sup>316</sup> (23.77–79),<sup>317</sup> some more formulae (23.80–87).

A.s.Ci.23.88–89 = A.h.Ci.21.82–83.

Chapter twenty-four (vātaśoṇitacikitsita), corresponding to the chapter of the same title of the *Hṛdaya* (Ci.22), is partly in prose (24.1–15), partly in verse (24.16–53).

The subjects dealt with in the first part are: treatment by various methods of blood-letting (24.2);<sup>318</sup> contra-indications for bloodletting; alternatives (24.3);<sup>319</sup> old ghee<sup>320</sup> or śatāvarīghṛta<sup>321</sup> are indicated when vāta is the strongest doṣa (24.4); the preparation and actions of jīvanītyasarpis (24.5);<sup>322</sup> useful oils (24.6); other preparations (24.7–8); prescriptions against vātaśoṇita with a predominance of pitta (24.9);<sup>323</sup> more prescriptions (24.10–11); bloodletting is recommended when blood is a very strong element (24.12); prescriptions against vātaśoṇita with a predominance of kapha (24.13–14)<sup>324</sup> and against the same disease when due to a combination of doṣas (24.15).<sup>325</sup>

The second part of the chapter, devoted to the therapy of the bāhya type of vātaśoṇita, deals with: an enumeration of suitable therapeutic measures (24.16);<sup>326</sup> prescriptions against bāhyavātaśoṇita with a predominance of vāta (24.17), pitta or blood (24.18),<sup>327</sup> kapha (24.19), vāta or kapha (24.20),<sup>328</sup> pitta or blood (24.21); the formula of



madhuyaṣṭitaila (24.22–25)<sup>329</sup> and śatapākamadhuyaṣṭitaila (24.26–27).

A.s.Ci.24.28–29 = A.h.Ci.22.47–48.

When in gambhīravātaśoṇita the blood has been reached, a special line of treatment is recommended (24.30ab). The treatment required when blood and pitta have increased excessively is described (24.30cd–32ab).

The third part of the chapter is about special cases of vātaśoṇita.

A.s.Ci.24.32–33 = A.h.Ci.22.49–50.

A.h.Ci.22.51–53ab is absent from the *Samgraha*.

A.s.Ci.24.34–51 = A.h.Ci.22.53cd–72.

## Chapter 5 Kalpasthāna

Chapter one (vamanakalpa),<sup>1</sup> corresponding to the chapter of the same title of the *Hṛdaya* (Ka.1), is, apart from the concluding verse, in prose.

The best emetic drugs are enumerated: madana, jīmūta, ikṣvāku, the two kinds of koṣātakī, and the fruits of kuṭaja;<sup>2</sup> the fruits of madana are the very best<sup>3</sup> (1.2); the most suitable emetic preparation depends on the main doṣa and dūṣya involved in the disorder that is present, etc. (1.3);<sup>4</sup> some of the actually innumerable preparations will be described (1.4).

The chapter is divided into six parts, dealing with preparations containing as the most important ingredient madana (1.5–18), jīmūta (1.19–22), ikṣvāku (1.23–28), dbāmārgava (1.29–30), kṛtavedhana (1.31), and kuṭaja (1.32).

The way madana fruits should be collected, prepared and dried is described (1.5);<sup>5</sup> the preparation of a kaṣāya with madana seeds (1.6);<sup>6</sup> various other preparations with the seeds or pulp from the fruits of madana (1.7–17);<sup>7</sup> when the fruits of madana are not available, the flowers or roots should be employed and prepared in the same way (1.18).<sup>8</sup>

The fruits of jīmūta, etc., should be handled like those of madana; disorders are mentioned which are especially suitable to treatment with jīmūta preparations (1.19);<sup>9</sup> various preparations with jīmūta (1.20–22);<sup>10</sup> special indications for the use of ikṣvāku (1.23);<sup>11</sup> preparations with ikṣvāku (1.24–28);<sup>12</sup> special indications for dhāmārgava;<sup>13</sup> some preparations with it<sup>14</sup> (1.29–30); special indications for kṛtavedhana preparations (1.31);<sup>15</sup> special indications for kuṭaja fruits;<sup>16</sup> some preparations with kuṭaja<sup>17</sup> (1.32).

The chapter ends with a summarizing verse (1.33).<sup>18</sup>

Chapter two (virecanakalpa),<sup>19</sup> corresponding to the chapter of the same title of the *Hṛdaya*, is, apart from six prose passages at the beginning, in verse.

The chapter deals with preparations having as their main ingredient trivṛt (2.2–33), rājavarṣa (2.34–42), tilvaka (2.43–47), sudhā (2.48–56), śaṅkhinī and saptalā (2.57–59), dantī and dravantī (2.60–74), and haritakī (2.75–80).

The best purgative root is that of trivṛt, the best bark that of tilvaka, the best milky exudation that of snuḥī, the best fruit that of haritakī.<sup>20</sup> The root of trivṛt is of two types: aruṇa and śyāva in colour;<sup>21</sup> the properties and actions of the aruṇa type, which is called trivṛt<sup>22</sup>, and of the other type, called śyāmā<sup>23</sup> (2.3); the collection of the roots and the drying of their rind (2.4);<sup>24</sup> preparations useful in disorders due to vāta, pitta and kapha (2.5);<sup>25</sup> more preparations (2.6).<sup>26</sup>

A.s.Ka.2.7–19 = A.h.Ka.2.9cd–23ab.<sup>27</sup>

A.s.Ka.2.20–25 = A.h.Ka.2.24–30ab.

A.s.Ka.2.26–33 are taken from the *Carakasamhitā*.<sup>28</sup>

A.s.Ka.2.34–39 = A.h.Ka.2.30cd–36.

Two additional verses (2.40–41) are borrowed from the *Carakasamhitā* again.<sup>29</sup>

A.s.Ka.2.42–45 = A.h.Ka.2.37–40.

A.s.Ka.2.46–47ab derive from the *Carakasamhitā*.<sup>30</sup>

A.s.Ka.2.47cd–53 = A.h.Ka.2.41–48.

Three verses (2.54–56) are added.<sup>31</sup>

A.s.Ka.2.57–58 = A.h.Ka.2.49–51ab.

The next verse (2.59) is borrowed from the *Carakasamhitā*.<sup>32</sup>

A.s.Ka.2.60–64 = A.h.Ka.2.51cd–57ab.

Ten verses are added (2.65–74cd).<sup>33</sup>

A.s.Ka.2.74ef = A.h.Ka.2.57cd.

The next six verses (2.75–80) replace A.h.Ka.2.58–61ab.

A.s.Ka.2.81–82 = A.h.Ka.2.61cd–62.

Chapter three (*vamanavirecanavyāpatsiddhi*),<sup>34</sup> corresponding to the chapter of the same title of the *Hṛdaya* (Ka.3), is mainly in prose (3.1–29), with a number of verses (3.30–42) at the end.

The subjects dealt with are: the procedure to be adhered to when emetics have an adverse, purgative effect; repetition of the treatment with correction of the dosage, etc. (3.2);<sup>35</sup> the proper measures to be taken when purgatives have an adverse effect (3.3);<sup>36</sup> patients who require a large dose of an emetic or purgative (3.4);<sup>37</sup> repetition of the treatment when an ineffective emetic or purgative has been administered (3.5);<sup>38</sup> the treatment of patients whose dosas are accompanied by āma (3.6);<sup>39</sup> the procedures to be adopted in particular cases of unsuccessful treatment (3.7–8);<sup>40</sup> the disorders caused by a strong drug, administered to patients unsuitable to this type of therapy; the treatment of these disorders (3.9–10);<sup>41</sup> dietary rules for patients with complications (3.11);<sup>42</sup> the effects of too small a dose in patients requiring a larger one (3.12);<sup>43</sup> the appropriate procedure in this type of cases (3.13);<sup>44</sup> a patient who, after the intake of a purgative, either strains too much or suppresses his urges, will develop the disorder called *pravāhikā*; its symptoms; its treatment is like that of *parisrava* (3.14);<sup>45</sup> suppression of the natural urges in general, after ingestion of a purgative, leads to *hṛdayopasaraṇa*; the symptoms of this disorder (3.15);<sup>46</sup> its treatment (3.16);<sup>47</sup> the disorders arising from an overdose of a dry (*rūkṣa*) drug; their treatment (3.17);<sup>48</sup> the bad effects of too large a dose of a sharp (*tīkṣṇa*) purgative; the treatment required (3.18); more therapeutic measures (3.19);<sup>49</sup> treatment of the effects of the excessive administration of an emetic (3.20);<sup>50</sup> the treatment of vomiting and eructations after excessive administration of an emetic (3.21);<sup>51</sup> the treatment of retraction of the tongue (*jihvā-praveśa*) under the same circumstances (3.22);<sup>52</sup> the treatment of a protruded (*nirgatā*) tongue;<sup>53</sup> protruded (*vyāvṛtta*) eyes, and loss of consciousness<sup>54</sup> (3.23); the treatment of an overdose of purgatives (3.24); the treatment of a prolapsed (*niḥṣṛta*) rectum;<sup>55</sup> obstruction of the organs of speech (*vākṣaṅga*),<sup>56</sup> etc. (3.25); after too large a dose of emetics and purgatives a fluid may be emitted which consists of blood (*jīvarakta*) or

raktapitta; ways to distinguish between the two (3.26);<sup>57</sup> the treatment to be applied when blood appears (3.27);<sup>58</sup> the general treatment of mishaps due to overadministration of emetics and purgatives (3.28); parallels between mishaps due to emetics and those due to purgatives: parikartikā due to emetics is like kaṭhakaṣaṇa due to purgatives, kaphapraseka due to emetics is like adhaḥparisrava due to purgatives, śuṣkodgāra due to emetics is like adhaḥpravāhaṇa due to purgatives (3.29).<sup>59</sup>

The chapter ends with a series of verses dealing with: the characteristics of drugs that will fail when administered (3.30);<sup>60</sup> contra-indications for emesis and purgation (3.31);<sup>61</sup> the treatment of patients who throw up a purgative (3.32); indications for the prescription of warm water (3.33); sudation is the treatment of choice when an emetic or purgative fails in making the doṣa(s) move (3.34); the treatment of eructations and the absence of the urge to evacuate after the ingestion of a purgative (3.35); the characteristics appearing when a drug is obstructed by kapha (3.36); the treatment to be applied when a purgative is digested or comes up (3.37); the characteristics indicating digestion of the drug; the choice of another drug (3.38); the signs manifesting themselves when the drug is covered by kapha; the choice of an alternative (3.39); the twelve mishaps (vyāpad) which may occur due to faulty application of emetics and purgatives: pratikūlā gatiḥ, pāka, grathitvatva, gaurava, doṣtokleśa, severe ādhmāna, parikarta, parisrava, pravāhikā, hṛdgrahaṇa, sarvagātraparigraha, and dhātusrava (3.40–41); other mishaps should be treated along the same lines (3.42).

Chapter four (bastikalpa), corresponding to the first part of the chapter of the same title of the *Hṛdaya* (Ka.4), is entirely in verse.

A.s.Ka.4.2–11 = A.h.Ka.4.1–10.

Two recipes for a clyster are added (4.12–13).<sup>62</sup>

A.s.Ka.4.14 = A.h.Ka.4.11.

A.s.Ka.4.15–17 describe a formula.<sup>63</sup>

A.s.Ka.4.18–20 = A.h.Ka.4.17–19ab.

A series of clysters are added (4.21–39).<sup>64</sup>

A.h.Ka.4.19cd is absent from the *Samgraha*.

A.s.Ka.4.40–43 = A.h.Ka.4.20–24ab.

Two recipes for clysters are added (4.44–45).<sup>65</sup>

A.s.Ka.4.46 = A.h.Ka.4.24cd–25ab.

One recipe is added (4.47).<sup>66</sup>

A.s.Ka.4.48–53 = A.h.Ka.4.68–73.

Chapter five (siddhabastikalpa), partly corresponding to the second half of the bastikalpa chapter of the *Hṛdaya* (Ka.4), is entirely in verse.

A.s.Ka.5.1–15 = A.h.Ka.4.26cd–43ab.

A series of recipes are added (5.16–23ab).

A.s.Ka.5.23cd = A.h.Ka.4.53ab.

More recipes follow (5.24–41).<sup>67</sup>

A.s.Ka.5.42–50 = A.h.Ka.4.54–62ab.

One recipe is added (5.51).

A.s.Ka.5.52–56 = A.h.Ka.4.62cd–67.

The last part of the chapter begins with Agniśeṣa questioning Punarvasu on the fruits most suitable for being used in clysters (5.57). Punarvasu answers these questions (5.58–60).<sup>68</sup> Next, Agniśeṣa and other pupils want to have information about the way clysters remove the doṣas from the body (5.61–62).<sup>69</sup> Punarvasu gives an exposition on this subject. He declares that vāta is the main cause of all diseases; the accumulation and dispersal of faecal matter, kapha, pitta, and other impurities is brought about by vāta; clysters are active against this doṣa and therefore the most powerful remedies; the administration of clysters constitutes half the art of medicine, or, according to some, the whole of it (5.63–66).<sup>70</sup> This thesis is illustrated by the various actions of the five kinds of vāta (5.67–72).

The concluding verse (5.73) stresses again the prominent place of clysters in medical treatment.

Chapter six (bastivyāpatsiddhi), corresponding to part of the chapter of the same title of the *Hṛdaya* (Ka.5), is entirely in verse.

The opening verse enumerates the six disorders caused by the deficient use of clysters and the same number brought about by their excessive administration. The first series consists of: vibandha, gaurava, ādhmāna, śīroruj, vāhana,<sup>71</sup> and ūrdhvaḡā; the second series consists of: kuṣṣiṣūla, aṅgaruj, hidhmā, hrtpīḍā, kartana, and srava (6.2).<sup>72</sup>

A.s.Ka.6.3–7 = A.h.Ka.5.1–6ab.

Five verses are added (6.8–12).<sup>73</sup>

A.s.Ka.6.13–15 = A.h.Ka.5.6cd–10ab.

Six verses are added (6.16–21).<sup>74</sup>

A.s.Ka.6.22–32 = A.h.Ka.5.10cd–23ab.

Fifteen verses are added (6.33–47).<sup>75</sup>

A.s.Ka.6.48–49 = A.h.Ka.5.23cd–25ab.

Two verses and a half are added (6.50–52ab).<sup>76</sup>

A.s.Ka.6.52cd–54 = A.h.Ka.5.25cd–28ab.

A long series of verses are added (6.55–75).<sup>77</sup>

Chapter seven (snehādivyāpatsiddhi), corresponding to the second part of the bastivyāpatsiddhi chapter of the *Hṛdaya* (Ka.5), is in verse.

The chapter begins with an enumeration of the eight mishaps (vyāpad) which may occur on the administration of a snehabasti (oleaginous enema): coverage by vāta, pitta, kapha, and too much food or faeces, administration on an empty stomach, swelling of the anal region (śūnapāyu), and administration in the presence of āma (āmadata) (7.2).<sup>78</sup>

A.s.Ka.7.3–17 = A.h.Ka.5.29–45ab.

Seven verses are added (7.18–24).<sup>79</sup>

A.s.Ka.7.25–26 = A.h.Ka.5.45cd–48ab.

One verse is added (7.27).<sup>80</sup>

A.s.Ka.7.28 = A.h.Ka.5.48cd–49ab.

Three verses are added (7.29–31).<sup>81</sup>

A.s.Ka.7.32–35 = A.h.Ka.5.50–54.

The remaining part of the chapter (7.36–49) consists of additions, dealing with: eight things to be avoided by patients treated with clysters: *uccairbhāṣya* (speaking loudly), too much remaining seated (*atyāsyā*), too much riding (*atīyānāyāna*) and walking (*atīcāṅkramaṇa*), eating before the previous meal has been digested (*ajīrṇabhojana*), eating unhealthy foods (*ahitāṇna*), sleeping by day, and sexual intercourse; the disorders resulting from infringement of these rules; the treatment of these disorders (7.36–43); patients habitually restraining their natural urges should get a suppository (*phalavarti*) before the administration of a clyster (7.44);<sup>82</sup> clysters suitable to these patients (7.45–46ab);<sup>83</sup> recipes for clysters (7.46cd–48);<sup>84</sup> non-unctuous clysters (*nirūha*) are excellent in the treatment of old people and children (7.49).<sup>85</sup>

Chapter eight (*bheṣajakalpa*), partly in prose, partly in verse, corresponds to the *dravyakalpa* chapter of the *Hṛdaya* (Ka.6).

The first part of this chapter deals with: the characteristics of the type of country and soil most suitable to the collection of medicinal substances (*bhūmiparīkṣā*) (8.2);<sup>86</sup> the characteristics of areas with a predominance of one of the five *mahābhūtas*;<sup>87</sup> areas with a predominance of water and earth produce substances suitable to purgation and *bṛṇhaṇa*; emetics are found in areas with a predominance of fire, air and *ākāśa*; areas possessing qualities of all five *mahābhūtas* produce substances acting in both ways; appeasing (*śamana*) drugs are found in areas with a predominance of *ākāśa* (8.3);<sup>88</sup> the characteristics of plants suitable to be collected;<sup>89</sup> the seasons for the collection of particular plant parts (8.4);<sup>90</sup> a divergent opinion on this subject: *saumya* plants are to be collected in *saumya* seasons, *āgneya* plants in *āgneya* seasons (8.5);<sup>91</sup> the way medicinal plants ought to be collected; ritual prescriptions; the preservation of the drugs (8.6);<sup>92</sup> preparations with milk should not be preserved for longer than a year;<sup>93</sup> preparations containing *pippalī*, *viḍaṅga*, *guḍa*, honey or ghee should be used when old<sup>94</sup> (8.7).

A.s.Ka.8.8 = A.h.Ka.6.7.

The chapter proceeds with: the five types of *kaṣāya*: *niryāsa*,<sup>95</sup> *kalka*, *niryūha*,<sup>96</sup> *śīta*, and *phāṇṭa*; their strength decreases in the mentioned order (8.9);<sup>97</sup> the characteristics of these preparations (8.10);<sup>98</sup> the way a *kvātha* should be prepared (8.11); the preparation of drugs containing milk or another fluid (8.12); the preparation of a *śīta* and a *phāṇṭa* (8.13); the preparation of a drug requires that the strength of the disease and of the patient, as well as the tastes, *vīrya*, etc., of the ingredients, should be taken into consideration (8.14).<sup>99</sup>

A.s.Ka.8.15 = A.h.Ka.6.12.

The average dose of a *niryāsa* is four *pala*; it is a *karṣa* for a *kalka* and a *cūrṇa*; three *pala* of a fluid should be added to a *kalka* or *cūrṇa* (8.16);<sup>100</sup> a *niryūha* should be prepared by adding half a *prastha* water to a *pala* of the drug and boiling it until a quarter of the original quantity remains (8.17);<sup>101</sup> one *pala* of the drug and six, respectively four, *pala* water are required for the preparation of a *śīta*, respectively *phāṇṭa* (8.18);<sup>102</sup> the ratios of the ingredients for the preparation of a *sneha* (8.19).

A.s.Ka.8.20–21 = A.h.Ka.6.15–16.

More rules for the preparation of a sneha (snehapāka) (8.22–23).<sup>103</sup>

A.s.Ka.8.24 = A.h.Ka.6.18cd–19ab.

The description of the method for preserving a sneha (8.25).

The system of weights and measures is the next subject (8.26).<sup>104</sup>

A.s.Ka.8.28–29 = A.h.Ka.6.23cd–24ab.

When a recipe does not specify the part of the plant to be used, one should take its roots (8.30).<sup>105</sup>

A.s.Ka.8.31–32 = A.h.Ka.6.19cd–21.

A.s.Ka.8.33 = A.h.Ka.6.29cd–30.

## Chapter 6

### Uttarasthāna

Chapter one (bālopacaraṇīya) corresponds to the chapter of the same title of the *Hṛdaya* (U.1). It is mainly in verse, with a number of prose passages in its first part.

The subjects dealt with in the first part are: a child, just after being born, should be cleansed by rubbing it with a mixture of salt and ghee (1.2);<sup>1</sup> next, it should be sprinkled with balātaila, which is helpful in overcoming the difficulties caused by the process of birth;<sup>2</sup> stones should be struck against one another at the root of its ears<sup>3</sup> (1.3); when it still does not move, one should fan it with a winnowing basket (śūrpa);<sup>4</sup> a mantra should be muttered in its right ear<sup>5</sup> (1.4–6); the umbilical cord should be cut and tied to its neck; the stump has to be sprinkled with kuṣṭhataila (1.7);<sup>6</sup> the fluids for bathing the child (1.8);<sup>7</sup> cleansing of the lips, tongue, palate and throat; a cotton swab soaked in a fatty substance should be placed on the head (1.9);<sup>8</sup> the first ritual feeding (1.10);<sup>9</sup> making the child vomit remnants of the amniotic fluid (garbhodaka) (1.11);<sup>10</sup> then the jātakarman should be performed according to the prājāpatya prescriptions (1.12).<sup>11</sup>

A.s.U.1.13 = A.h.U.1.11cd–12ab.

The chapter proceeds with: the substances for feeding the child during the first three days (1.14);<sup>12</sup> feeding it on the fourth day; the beginning of breast-feeding on this day (1.15);<sup>13</sup> the ears of the child should be covered daily with a piece of cloth (plota) soaked in a fatty substance (1.16);<sup>14</sup> the bedding of the child; a water jar (udakumbha), over which a mantra has been muttered, should be placed near the door of the bedroom (1.17);<sup>15</sup> the child should be fanned with the branches of particular trees;<sup>16</sup> the same branches are to be placed all around the room;<sup>17</sup> grains should be scattered on the floor of the room and outside;<sup>18</sup> a bali should be offered twice daily (1.18);<sup>19</sup> substances for fumigation; a brāhmaṇa, versed in the *Atharvaveda*, should perform a śāntikarman during ten successive days; the Māyūrī, Mahāmāyūrī and Āryāratnaketuḍhāriṇī should be recited twice daily (1.19);<sup>20</sup> a bag with magical herbs should be attached to the beam above the door, to the child's neck and that of its mother, and to the pillow of the bed;<sup>21</sup> the mantras of Āryāparṇasabarī and Āryāparājita should be written down with gorocanā (on a piece of bark or paper) (1.20);<sup>22</sup> a pestle should be laid across the threshold of the door; a fire has to be kept burning day and night; devoted women and female friends should remain awake; the house should be full of rejoicing people (1.21);<sup>23</sup> the selection of a wet-nurse (1.22);<sup>24</sup> testing the breastmilk of a wet-nurse (1.23);<sup>25</sup> the way in which the wet-nurse should begin breastfeeding the child (1.24);<sup>26</sup> disorders arising in the child when the breasts of the wet-nurse are filled with too much milk (1.25);<sup>27</sup> causes leading to an insufficient secretion of milk or its absence; galactagogues



(1.26);<sup>28</sup> women whose milk is unsuitable (1.27).<sup>29</sup>

A.s.U.1.28 = A.h.U.1.21.

The first bath of the mother after delivery (snānotsava) should take place on the tenth or twelfth day;<sup>30</sup> the father should give a name to the child on one of these days (1.29), or on the hundredth day or after the completion of the first year; auspicious substances to be worn by the child (1.30);<sup>31</sup> rules for naming a child (1.31–33).<sup>32</sup>

A.s.U.1.34 = A.h.U.1.24.

Requirements for comfortable surroundings of the child are described (1.35–36ab).<sup>33</sup>

A.s.U.1.36cd–37cd = A.h.U.1.25–26ab.

An ardhāśloka mentioning substances for fumigation is added (1.37ef),<sup>34</sup> followed by the advice not to wake up a sleeping child suddenly (1.38);<sup>35</sup> its mouth should be cleansed carefully (1.39).

A.s.U.1.40–41 = A.h.U.1.26cd–28ab.

Disorders are dealt with which may arise when the breasts show particular defects (1.42–43ab);<sup>36</sup> drinking the breastmilk of a pregnant woman leads to the disease called pārīgarbhika<sup>37</sup> (1.43cd).

A.s.U.1.44ab = A.h.U.1.20ab.

A.s.U.1.44cd corresponds to A.h.U.1.20cd.

The child should leave the room where it remained after birth (sūtikāgāra) for the first time in the fourth month in order to honour Agni, Skanda and the other gods (1.45).<sup>38</sup> In the fifth month it should be made to sit on the earth, while bali offerings are made in the four directions of the sky (1.46); a mantra to be employed on this occasion (1.47–48); after the performance of this ritual, the child should be made to sit up daily; after sitting for a while, its hips, etc., should be rubbed (1.49);<sup>39</sup> in the sixth month, solid food is given for the first time (annaprāśana);<sup>40</sup> the child should be weaned gradually (1.50–51ab).<sup>41</sup>

The next section is concerned with piercing the earlobes.

A.s.U.1.51cd–58cd = A.h.U.1.28cd–36.

The after-treatment is described<sup>42</sup> and contra-indications for elongation of the lobes (1.58ef–59);<sup>43</sup> beneficial effects of well-pierced ears and wearing ornaments in them (1.60);<sup>44</sup> a procedure to be employed when elongation of the lobes fails,<sup>45</sup> in particular in women (1.61); complications which may follow piercing; their treatment; piercing should be repeated after healing (1.62–63c);<sup>46</sup> trying to elongate the lobes too quickly may result in tearing them; repair is then necessary, as described in the chapter on the treatment of ear diseases (1.63d–64).

During the first year of life a child should, outside of the house, not look upon brilliant objects, fire, etc. (1.65).<sup>47</sup>

A.s.U.1.66 = A.h.U.1.37.

Methods are described which may be helpful in weaning (1.67).<sup>48</sup>

A.s.U.1.68–69 = A.h.U.1.38–39.

The treatment of children who get very hungry after weaning (1.70);<sup>49</sup> good and bad properties of those in charge of children (1.71–72).<sup>50</sup>

A.s.U.1.73–74 = A.h.U.1.40–41.

The characteristics of a suitable playground (krīdābhūmi) are described (1.75–76),<sup>51</sup> followed by the right education (1.77–78ab).<sup>52</sup> The child should be bathed, anointed and massaged daily; recipes for the substances to be employed (1.78cd–82). Useful medicated foods and drinks (1.83–85), an oil for rubbing the head (1.86), electuaries (1.87–90ab).<sup>53</sup>

A.s.U.1.90cd–91 = A.h.U.1.42–43ab.

The sārvasvataghr̥ta is described (1.92–96ab),<sup>54</sup> followed by two electuaries (1.96cd–98), and eleven more preparations of this type (1.99–100), which are also useful in adults (1.101ab).<sup>55</sup>

Eating of earth (nṛdbhakṣaṇa) should be prevented; disorders resulting from this habit (1.101cd–102). Teeth cleaning is not allowed until the teeth are firmly set (1.103).

A child protected in the way described will not be attacked by grahas (1.104).<sup>56</sup>

Chapter two (bālāmayapratīśedha) corresponds to the chapter of the same title of the *Hṛdaya* (U.2). Its first part (2.1–24) is in prose, the remaining part (2.25–148) in verse.<sup>57</sup>

The subjects dealt with are: the suitable food for children in the kṣīra, annāda and ubhayavṛtti stages (2.2);<sup>58</sup> corrupted milk gives rise to many diseases in children (2.3);<sup>59</sup> the characteristics of milk corrupted by vāta (2.4),<sup>60</sup> pitta (2.5),<sup>61</sup> kapha (2.6);<sup>62</sup> these corruptions lead to disorders with characteristics due to the doṣa involved (2.7);<sup>63</sup> the place repeatedly touched by a child or the place which it does not suffer being touched points to a local painful sensation (2.8);<sup>64</sup> signs pointing to a disorder in a particular region or organ (2.9);<sup>65</sup> dependent on the particular disorder, the wet-nurse should be treated with śamana or śodhana measures (2.10);<sup>66</sup> the treatment required when the milk is corrupted by vāta in general (2.11)<sup>67</sup> and when particular characteristics due to vāta are present in it (2.12);<sup>68</sup> the same regarding corruption by pitta (2.13<sup>69</sup> and 14)<sup>70</sup> and kapha (2.15<sup>71</sup> and 16<sup>72</sup>); the treatment required when more than one doṣa is involved (2.16);<sup>73</sup> the description of the disease called kṣīrālasaka, due to all three doṣas (2.17);<sup>74</sup> its treatment (2.18);<sup>75</sup> the coming through of the teeth causes all kinds of disorders; disorders arising in particular due to this cause (2.19);<sup>76</sup> the teeth begin to come through after the eighth month in long-lived children, after the fourth month in the other ones; coming through too early prevents a full development of the dhātus (2.20); teeth develop from bone tissue and marrow; they fall out at a later age and are replaced because bone tissue and marrow are not yet fully developed in young children; they cannot be replaced by new ones in adults (2.21); physiological explanations for the fact that teeth lost by an accident or disease do not grow again (2.22); a description of the processes leading to breaking through of the teeth and the ensuing disorders (2.23); causes for the non-appearance of the teeth (2.24).

A.s.U.2.25–28 = A.h.U.2.28–32ab.<sup>77</sup>

A.s.U.2.29–30 = A.h.U.2.33cd–35ab.

Prescriptions against the grathita type of disorder of the breastmilk are added (2.31–32).

A.s.U.2.33 = A.h.U.2.35cd–36ab.

An ardhāśloka is added (2.34ab).

A.s.U.2.34cd–35 = A.h.U.2.36cd–38ab.

Recipes are added against fever due to vāta (2.36–40) or pitta (2.41–42), āmātisāra and raktātisāra (2.43), diseases of the head (2.44–45), diseases of the eyes (2.46–47), various diseases associated with pitta (2.48–50), and fever due to kapha (2.51–53).

A.s.U.2.54–55 = A.h.U.2.38cd–40.

The formula of a medicated ghee is added (2.56–58).

A.s.U.2.59–61 = A.h.U.2.41–44ab.

The milk teeth are usually replaced by the second teeth in the eighth year (2.62).

A.s.U.2.63–66 = A.h.U.2.44cd–48ab.

Some prescriptions are added (2.67–68).

A.s.U.2.69–74 = A.h.U.2.48cd–54ab.

Some prescriptions are added to the series against śoṣa in children (2.75–77).

Recipes against kāsa, śvāsa, chardi and other disorders follow (2.78–84).<sup>78</sup>

A.s.U.2.85–87 = A.h.U.2.58cd–61.

A series of prescriptions against various diseases are added (2.88–93ab).

A.s.U.2.93cd–94 = A.h.U.2.62–63ab.

Rituals are described (prāyaścitta) to ward off evil (2.95–96).

The aetiology and symptomatology of pārigarbhika, also called paribhava, are dealt with next (2.97–98),<sup>79</sup> followed by its treatment with drugs (2.99–100). Causes of conditions resembling pārigarbhika and their treatment are discussed (2.101–102), and the treatment of children with paribhava who are very hungry (2.103–105). These children should be bathed in a particular fluid too (2.106ab); when even this is not helpful, a particular ritual is recommended (2.106cd–108).

The ritual and medicinal treatment of children whose hair gets twisted (jaṭibhūta) and who show some other, associated, symptoms is then described (2.109–111).

The following verses are concerned with the symptoms and treatment of a disease called parvānuplava (2.112–114).<sup>80</sup>

A.s.U.2.115–119 = A.h.U.2.63cd–68.

Mastuluṅgaṣaya and its treatment are dealt with (2.120).<sup>81</sup>

A.s.U.2.121–127 = A.h.U.2.69–75.

A prescription against the disease called anāma is added (2.128), followed by prescriptions to be employed when the child refuses to drink (2.129), cries, or is frightened (2.130), when the stump of the cord does not fall off (2.131), when the navel is swollen (unnatā) or inflamed (pāka) (2.132–135), or when disorders are present due to an improper cutting of the cord (2.136).

A disease caused by not vomiting the amniotic fluid is described; the treatment of this disease, called ulbaka, sahaja, or ambupūṇa (2.137–143). The treatment of a disorder in which the skin has a burnt (paridagha) appearance; the treatment of pāṇḍuroga (2.144–145).

A.s.U.2.146–147 = A.h.U.2.76–77.

Since diseases in children are also brought about by hidden grahas, one should always have recourse to treatment of the daivayuktyāśraya type (2.148).

Chapter three (bālagrahaṇīyā), corresponding to the first part of the bālagrahaṇīyā chapter of the *Hṛdaya* (U.3), is entirely in verse.

A.s.U.3.2–3 = A.h.U.3.1–3ab.

The grahas mentioned, who can assume any shape at will (kāmarūpin), waited upon Skanda devotedly; Skanda, as a protector of children, became the foremost among them (3.4); when Skanda had grown up and assumed the leadership, Rudra was favourably disposed towards these grahas, who humbly asked him for a living (3.5); he requested them to take away the wellbeing and health of children living in the house of parents who do not honour the forefathers and deities (3.6–7); therefore, on the request of Śūlin (= Rudra), these grahas attack children, usually when they are asleep and on parvan days<sup>82</sup> (3.8–10); when taking possession of a child, they can only be observed by the pure eyes of science (śāstracakṣus), like gandharvas who enter the bodies of women (3.11).<sup>83</sup>

A.s.U.3.12–35ab = A.h.U.3.3cd–29.

A.s.U.3.35cd is added.

A.s.U.3.35ef–46 = A.h.U.3.30–41ab.

Chapter four (bālagrahaṇīyā), corresponding to the second part of the chapter of the same title (U.3) of the *Hṛdaya*, is in verse; prose is found at A.s.U.4.43 and between 4.68 and 69.

A.s.U.4.2–14ab = A.h.U.3.41cd–54.

A.s.U.4.14cd corresponds to A.h.U.3.58.

Magical rituals are described, accompanied by the tying of an amulet (pratisarā) on the child; the Aparājita vidyā should be written with gorocanā on a piece of birch bark; many magical herbs are mentioned, useful in warding off grahas by tying them round the neck of the child (4.15–21). A very long mantra, to be recited on the occasion, follows (4.22–35).

Substances suitable as a bali offering are enumerated (4.36–39ab); places and times for such a bali are indicated (4.39cd–40). A maṇḍala should be drawn, with Bhūtapati in the centre;<sup>84</sup> the bali should be offered and a mantra muttered; thus the child should be protected (ātmarakṣā) (4.41–43).

A second mantra has to follow this ritual (4.44–49), and a third, called kulavidyā (4.50–60).<sup>85</sup> Prescriptions are given for a fire offering (homa) to be performed after the bali (4.61–62). Finally, rules are given for the recitation of the agnidaṇḍa mantra and this mantra itself (4.63–69).

Particular characteristics of the sacrificial fire indicate that either health will result from the ritual or disease (4.70–72).

Chapter five (snapanāṇīyā), on a ritual bath of the child and the woman who nurses it (stanyamātar), written in verse, has no corresponding part in the *Hṛdaya*.<sup>86</sup>

The subjects are: places suitable for a bath (5.2–3);<sup>87</sup> suitable times are the parvan days of particular months (5.4);<sup>88</sup> prescriptions for the drawing of a maṇḍala (5.5–6);<sup>89</sup> deities and their attributes, to be placed within the maṇḍala (5.7–12);<sup>90</sup> instructions for making fifteen objects called kīla or śaṅku (a pointed stake): six made of iron, seven

made of three (other) metals (loha), and two of khadira wood, sprinkled over with sandal water (5.13); the requirements for eight, sixteen or thirty-two pitchers (ghaṭa),<sup>91</sup> painted in diverse colours, to be placed at the four doors (dvāra) of the maṇḍala (5.14–15);<sup>92</sup> substances to be put inside these pitchers (5.16);<sup>93</sup> earth from a number of particular places should be collected; a kindled fire should be fetched; other items necessary consist of firewood from kṣīrivr̥kṣa trees, fragrant substances, ghee, honey, etc. (5.17–19); the child and the nurse are made to sit down in the centre of the maṇḍala on a particular type of seat (pīṭha), made of udumbara or palāśa wood, on which darbha grass has been scattered (5.20);<sup>94</sup> the physician should then make an offering into the fire, which is placed in the northern part of the maṇḍala;<sup>95</sup> this sacrifice has to be accompanied by a mantra belonging to the bali for Skanda (5.21); requirements for the physician in charge of the ritual; he should wash the child, with the water contained in the several pitchers successively<sup>96</sup> and with the kinds of earth collected, mixed with other substances (5.22–23c); the mantras which accompany these actions;<sup>97</sup> four pitchers are mentioned, associated with a particular deity: (1) Vijaya, associated with Indra (5.24–28), (2) Vaijayanta, associated with Yama (5.29–34), (3) Jayanta, associated with Varuṇa (5.35–40), (4) Aparājita, associated with Dhanada (= Kubera) (5.41–45); Brahmā and the waters are invoked (5.46); a series of mantras follow, invoking numerous deities, etc. (5.47–60);<sup>98</sup> rules for the child's conduct and diet after the bath (5.61); the effects of the ritual (5.62–63).

The chapter ends with the recipe of a decoction, beneficial when used for a child's bath (5.64–65).<sup>99</sup>

Chapter six (pratyekagrahapraṭiśedha), mainly written in prose, has no parallel in the *Hṛdaya*

The subjects dealt with are: measures to be employed against afflictions by Skanda: pradehas, pariṣeka, abhyaṅga (6.2),<sup>100</sup> abhyaṅga (6.3),<sup>101</sup> medicated ghees (6.4–5),<sup>102</sup> fumigations (6.6),<sup>103</sup> roots of plants to be tied around the neck or on the head (6.7),<sup>104</sup> a bali offering (6.8),<sup>105</sup> accompanied by a mantra (6.9–11),<sup>106</sup> worship of the fire and a ritual bath (6.12),<sup>107</sup> accompanied by a mantra (6.13–17);<sup>108</sup> measures against Viśākhā: pradehas,<sup>109</sup> pariṣeka, abhyaṅga (6.18),<sup>110</sup> medicated ghees (6.19),<sup>111</sup> fumigations and plants to be worn as charms (6.20),<sup>112</sup> a bali and a bath (6.21),<sup>113</sup> accompanied by a mantra (6.22);<sup>114</sup> measures against Naigameṣa: pradehas, pariṣeka, abhyaṅga (6.23),<sup>115</sup> ghees, fumigation, plants to be worn as charms (6.24),<sup>116</sup> a bali and a bath (6.25),<sup>117</sup> accompanied by a mantra (6.26);<sup>118</sup> measures against Śvagraha: pradehas, pariṣeka (6.27), abhyaṅga, ghees, fumigation (6.28), plants to be worn as charms (6.29), a bali and a bath (6.30), accompanied by a mantra (6.31); measures against Piṭṭagraha: pradehas, abhyaṅga (6.32), pariṣeka, abhyaṅga (6.33), ghees (6.34), an errhine, a lepa (6.35), fumigation, plants to be worn as charms (6.36), a bali and a bath (6.37), accompanied by a mantra (6.38); measures against Śakunī: pradehas, abhyaṅga (6.39),<sup>119</sup> pariṣeka,<sup>120</sup> abhyaṅga (6.40), a cūrṇa against inflammation of the mouth,<sup>121</sup> ghees,<sup>122</sup> fumigations<sup>123</sup> (6.41), plants to be worn as charms (6.42),<sup>124</sup> a bali and a bath (6.43),<sup>125</sup> accompanied by a mantra (6.44–45);<sup>126</sup> measures against Pūtanā: pradehas, pariṣeka<sup>127</sup> (6.46), abhyaṅga,<sup>128</sup> ghees,<sup>129</sup> fumigation,<sup>130</sup> plants to be worn as charms

(6.47),<sup>131</sup> a bali and a bath (6.48),<sup>132</sup> accompanied by a mantra (6.49–50);<sup>133</sup> measures against Śtītapūtanā: pradehas, plants to be worn as charms,<sup>134</sup> pariṣeka<sup>135</sup> (6.51), abhyaṅga,<sup>136</sup> a ghee (6.52), another ghee,<sup>137</sup> fumigation (6.53),<sup>138</sup> a bali and a bath (6.54),<sup>139</sup> accompanied by a mantra (6.55);<sup>140</sup> measures against Andhapūtanā: pradehas,<sup>141</sup> pariṣeka,<sup>142</sup> abhyaṅga<sup>143</sup> (6.56), ghees (6.57),<sup>144</sup> fumigation (6.58),<sup>145</sup> plants to be worn as charms (6.59),<sup>146</sup> a bali and a bath (6.60),<sup>147</sup> accompanied by a mantra (6.61);<sup>148</sup> measures against Mukhamaṇḍitikā: lepa, pariṣeka,<sup>149</sup> abhyaṅga<sup>150</sup> (6.62), ghees (6.63),<sup>151</sup> fumigation<sup>152</sup> and other measures, substances to be worn as charms,<sup>153</sup> treatment of the child's mother (6.64), a bali and a bath (6.65),<sup>154</sup> accompanied by a mantra (6.66);<sup>155</sup> measures against Revatī: a pradeha,<sup>156</sup> pariṣeka<sup>157</sup> (6.67), abhyaṅga,<sup>158</sup> a ghee,<sup>159</sup> fumigation,<sup>160</sup> a lepa (6.68), a bali and a bath (6.69),<sup>161</sup> accompanied by a mantra (6.70);<sup>162</sup> measures against Śuṣkarevatī: these are the same as those against Skanda, apart from the fumigation; massage, an oil for the eyes (6.71), a lepa, fumigation (6.72), a bali and a bath (6.73), accompanied by a mantra (6.74); accompanying disorders and complications should be managed with the measures against children's diseases (6.75).

Chapter seven (bhūtavijñānīya), corresponding to the chapter of the same title of the *Hṛdaya* (U.4), is in prose, with the exception of two verses at the end.

The subjects are:<sup>163</sup> the eighteen lords of the bhūtas (bhūtādhipati): gods (sura), Asuras, Gandharvas, Urugas (= Nāgas), Yakṣas, Brahmarākṣasas, Rākṣasas, Piśācas, Pretas, Kūsmāṇḍas, Kākhordas, Maukirāṇas, Vetālas, Pitars, Ṛṣis, gurus, vṛddhas, and Siddhas;<sup>164</sup> their attendants and the attendants of these attendants are innumerable,<sup>165</sup> thus making the world of the bhūtas infinite (7.2); bhūtas in general are eager for food; they roam about at midnight, are dreadful, and feed upon flesh, blood and fat (7.3);<sup>166</sup> on account of their living together with gods, Asuras, etc., their contact with them and the adoption of the same behaviours, the bhūtas share the same names (7.4);<sup>167</sup> the cause of their entering (anupraveśa) consists primarily of errors of judgment (prajñā-parādha) during this or a former existence (7.5);<sup>168</sup> the consequences of prajñāparādha, leading to injury by a bhūta (7.6);<sup>169</sup> likewise, persons suffering from unmāda or apasmāra, fever, or other diseases, particularly persons with sores, the more so when they smell after pus, blood or fat, are liable to an attack (7.7);<sup>170</sup> each class of bhūtas approaches at a preferred period of time in order to hurt human beings (7.8); times, places and occasions likely to attract bhūtas (7.9);<sup>171</sup> the specific ways for the various groups of bhūtas to exert their influence on human beings (7.10);<sup>172</sup> the periods of time<sup>173</sup> and the types of persons<sup>174</sup> preferred for their attack by each group of bhūtas (7.11–15); the prodromes (7.16);<sup>175</sup> the characteristic features of someone afflicted by a devagraha (7.17);<sup>176</sup> the features specific for affliction by Īśvara, Indra, Dhanada (= Kubera), Varuṇa (7.18);<sup>177</sup> the characteristic features of someone afflicted by an Asura (7.19),<sup>178</sup> a Gandharva (7.20),<sup>179</sup> Uruga (7.21),<sup>180</sup> Yakṣa (7.22);<sup>181</sup> features specific for the Yakṣas called Manivara and Vikāṭa (7.23);<sup>182</sup> the features indicating affliction by a Brahmarākṣasa;<sup>183</sup> the specific features due to the being called Yājñasena (7.24);<sup>184</sup> the features pointing to affliction by a Rākṣasa;<sup>185</sup> features specific for Viśākha, Saṅgama,<sup>186</sup> Vidyumālīn<sup>187</sup> and Virūpākṣa<sup>188</sup> (7.25);<sup>189</sup> the features characteristic of

an affliction by a Piśāca,<sup>190</sup> by the beings called Kaśmala,<sup>191</sup> Kuśa<sup>192</sup> or Nistejas,<sup>193</sup> by a preta<sup>194</sup> (7.26); the features characteristic of a Kuśmāṇḍa<sup>195</sup> (7.27), Kākḥorda (7.28),<sup>196</sup> Maukīraṇa (7.29),<sup>197</sup> Vetāla (7.30),<sup>198</sup> Piṭṭgraha (7.31),<sup>199</sup> guru, vṛddha or Sid-dha (7.32).<sup>200</sup>

A.s.U.7.33 = A.h.U.4.1.

A.s.U.7.34 = A.h.U.4.44.

Chapter eight (bhūtapraṭiśedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.5), is entirely in verse.

A.s.U.8.2–9 = A.h.U.5.1–9.

Three verses are added, giving prescriptions for an errhine (8.10)<sup>201</sup> and two vartis to be used as an añjana for the eyes (8.11–12).<sup>202</sup>

A.s.U.8.13–60 = A.h.U.5.10–53.

Chapter nine (unmādapraṭiśedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.6), is partly in prose (9.1–10), partly in verse (9.11–65).

The subjects dealt with in prose are: the six types of unmāda;<sup>203</sup> the etymology of unmāda<sup>204</sup> (9.2); the aetiological factors (9.3);<sup>205</sup> the pathogenesis (9.4);<sup>206</sup> the prodromes;<sup>207</sup> the symptoms arise immediately after the prodromal stage<sup>208</sup> (9.5); the general symptoms (9.6–7);<sup>209</sup> the symptoms of unmāda due to vāta (9.8),<sup>210</sup> pitta (9.9),<sup>211</sup> and kapha (9.10).<sup>212</sup>

A.s.U.9.11–16 = A.h.U.6.14–20ab.

One verse is added, stating that śairīṣataila is recommended as a sneha in unmāda due to vāta, mahākalyāṇaka(ghṛta) in unmāda due to pitta, and pañcagavya(ghṛta) in unmāda due to kapha (9.17).

A.s.U.9.18–34 = A.h.U.6.20cd–38ab.

A series of additional verses follow: the recipe of laśūnaghṛta and its actions (9.35–37);<sup>213</sup> rules for the use of this ghee or, as an alternative, pure old ghee (9.38);<sup>214</sup> other preparations to be employed (9.39);<sup>215</sup> a medicated oil (9.40–41); recipes for errhines and añjanas (9.42–43).<sup>216</sup>

A.s.U.9.44–45 = A.h.U.6.38cd–40.

An added verse gives the recipe for an añjana, useful in human beings and in cattle (9.46).<sup>217</sup>

A.s.U.9.47–65 = A.h.U.6.41–60.

Chapter ten (apasmārapraṭiśedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.7), is entirely in verse.

A.s.U.10.2–16 = A.h.U.7.1–17ab.<sup>218</sup>

Three verses are added, dealing with substances useful for emesis and purgation (10.17), āsthāpana (10.18), anuvāsana, abhyāṅga, and in errhines (10.18–19).

A.s.U.10.20–26 = A.h.U.7.17cd–24ab.

The formula of śairīṣataila and its actions follow (10.27–37).<sup>219</sup>

A.s.U.10.38–41 = A.h.U.7.24cd–28ab.

A ghee against apasmāra due to pitta is added (10.42).<sup>220</sup>

A.s.U.10.43–46 = A.h.U.7.28cd–32.

Seven verses are added: the recipe of a varti to be used as an añjana (10.47–48),<sup>221</sup> two more añjanas, a fumigation (10.49–50),<sup>222</sup> an oil for abhyaṅga (10.51), another oil (10.52–53).<sup>223</sup>

A.s.U.10.54 = A.h.U.7.33.

Five verses are added: the recipes for a plaster and a fumigation (10.55–56);<sup>224</sup> substances to be used for massage and pariṣeka (10.57); the beneficial effects of these treatments (10.58); the treatment of cases of apasmāra, in which bhūtas are involved too (10.59).<sup>225</sup>

A.s.U.10.60–63 = A.h.U.7.34–37.

Mahāsneha, as a drink, used for abhyaṅga, or in a clyster, is an excellent remedy for afflictions caused by grahas, for insanity (vibhrāntacetas), and epilepsy (vibhrāntasṁpti) (10.64).

Chapter eleven (vartmarogavijñānīya) is identical with the chapter of the same title of the *Hṛdaya* (U.8).

Chapter twelve (vartmarogapratīṣedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.9), is partly in prose (12.1–6, 8–24), partly in verse (12.7, 25–36).

The subjects dealt with are: the treatment of kṛcchrabodha<sup>226</sup> (12.2–3),<sup>227</sup> kumbhī-kapīṭakās (12.4),<sup>228</sup> pittotkliṣṭa and raktotkliṣṭa (12.5),<sup>229</sup> pakṣmaśāta (12.6–7),<sup>230</sup> pothakī (12.8–9),<sup>231</sup> kaphotkliṣṭa (12.10),<sup>232</sup> laṅgaṇa (12.11),<sup>233</sup> utsaṅgapīṭakā and añjananāmikā (12.12),<sup>234</sup> the disorders from bisavartman up to bahalavartman (12.13),<sup>235</sup> kukūṇaka (12.14–16),<sup>236</sup> pakṣmoparodha (12.17–22),<sup>237</sup> upapakṣman (12.23),<sup>238</sup> bāhyālaji, and arbuda (12.24).<sup>239</sup>

A.s.U.12.25–36 = A.h.U.9.3–15.

Chapter thirteen (sandhisitāsitarogavijñānīya) is identical with the chapter of the same title of the *Hṛdaya* (U.10).

Chapter fourteen (sandhisitāsitarogapratīṣedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.11), is largely in prose (14.1–25; 27–41), while some verses occur, interspersed and at the end (14.26, 42–48).

The subjects dealt with are: the treatment of upanāha (14.2),<sup>240</sup> parvaṇī (14.3),<sup>241</sup> pūyālasa (14.4),<sup>242</sup> kṛmigranthi (14.5),<sup>243</sup> śūktikā (14.6),<sup>244</sup> balāsagrathita (14.7–8), piṣṭaka and balāsagrathita (14.9–10),<sup>245</sup> sirotpāta, sirāharṣa, sirājāla, and arjuna (14.11–12);<sup>246</sup> the conservative (14.13)<sup>247</sup> and surgical treatment (14.14–15)<sup>248</sup> of the five kinds of arman; special cases, after-treatment, complications, the removal of a remnant of the arman, and treatment of a recurrent arman (14.16–21);<sup>249</sup> the surgical management of sirājāla (14.22) and sirāpiṭakās (14.23);<sup>250</sup> the treatment of śukraka and vraṇaśukra (14.24–37),<sup>251</sup> sirāśukra (14.38–40),<sup>252</sup> and ajakā (14.41).<sup>253</sup>

A.s.U.14.42–48 = A.h.U.11.51cd–58.



Chapter fifteen (dṛṣṭirogaviññāṇīya) is identical with the chapter of the same title of the *Hṛdaya* (U.12).

Chapter sixteen (timirapratīṣedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.13), is entirely in verse.

A.s.U.16.2–16 = A.h.U.13.1–16ab.

The next seven verses (16.17–23) replace A.h.U.13.16cd–19.

A.s.U.16.24–26 = A.h.U.13.20–22.

A.s.U.16.27–29 = A.h.U.13.28–31ab.<sup>254</sup>

Additional verses give the recipes of sukhāvatī varti (16.30–31)<sup>255</sup> and dṛṣṭipradā varti (16.32–33),<sup>256</sup> three more añjanas<sup>257</sup> and variants of them (16.34–36).<sup>258</sup>

A.s.U.16.37–39 = A.h.U.13.48–50.

Additional verses describe a ghee and an oil (16.40–41).<sup>259</sup>

A.s.U.16.42–46 = A.h.U.13.54cd–59.<sup>260</sup>

A.s.U.16.47–49 = A.h.U.13.62–64ab.

Three additional verses follow (16.50–52).<sup>261</sup>

A.s.U.16.53 = A.h.U.13.65–66ab.<sup>262</sup>

A.s.U.16.54ab = A.h.U.13.67cd.

Two prescriptions are added (16.54cd–55).

A.s.U.16.56 = A.h.U.13.68–69ab.

A.s.U.16.57 replaces A.h.U.13.69cd–70ab.

A.s.U.16.58–59ab = A.h.U.13.70cd–71.

The varti called pītā is added (16.59cd).

A.s.U.16.60–64 replace A.h.U.13.72–73ab.

A.s.U.16.65–67 replace A.h.U.13.73cd–77ab.

A.s.U.16.68 = A.h.U.13.77cd–78.

The verses that follow continue with the treatment of timira due to all the doṣas (16.69–74ab),<sup>263</sup> timira due to a combination of two doṣas (16.74c),<sup>264</sup> and kāca (16.74d–75).<sup>265</sup>

A.s.U.16.76–77 = A.h.U.13.91–92.

The next subject is the treatment of niśāndha, also called rātryandha and naktāndha (16.78–84).<sup>266</sup>

The dietary rules to be observed in eye diseases are the same as those in patients with sores (16.85). General rules for the behaviour and diet of patients with timira are given (16.86–87). Patients should never forget to pay attention to the six beings who protect one's eyesight: Suṣa, Bhavya, Sukanyā (Cyavana's wife), Skanda, Cyavana, and the Aśvins (16.88).

A.s.U.16.89–94 = A.h.U.13.94cd–100.

The chapter ends with a recipe against timira (16.95).

Chapter seventeen (liṅganāśapratīṣedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.14), is largely in prose (17.1–3 and 7–27), with some verses interspersed and at the end (17.4–6, 28–34).

The subjects dealt with in the first part are: the synonyms of liṅganāśa: nīlikā, paṭala

and āndhya;<sup>267</sup> līṅganāśa due to kapha is curable; six complications of it are known: āvartakī, śarkarā, rājīmatī, chinnāṃśukā, candrakī, and chattrakī (17.2); the characteristics of these six complications, which constitute contra-indications for couching (17.3).<sup>268</sup>

A.s.U.17.4a-d = A.h.U.14.8.

An ardhaśloka is added (17.4ef).

A.s.U.17.5 = A.h.U.14.2–3ab.

One verse is added on cases suitable or unsuitable to couching (17.6).

The technique of couching is described, followed by the after-treatment (17.7–16).<sup>269</sup>

Technical faults (vyadhadoṣa) are discussed, the disorders resulting and their treatment; the faults mentioned are: adhovyadha, ūrdhavyadha, kṛṣṇāsannavyadha, apāṅgāsannavyadha, and sirāvyadha (17.17–22).<sup>270</sup> When a sirājāla is present, one should remove it before proceeding to couching (17.23). Faultive ways of handling the śālāka (śālākābhramaṇadoṣa) are described, the disorders resulting, and their treatment; the faults dealt with are: kṣobhaṇa, ūrdhvapraṇayana, adhonayana, atyarthaśṛṣṭighaṭṭana, and atidṛṣṭipreraṇa (17.24).<sup>271</sup> Undesirable effects of the couching procedure and the management of such cases form the next subject. Undesirable effects are: sphuṭana, avagalaṇa, vistarāṇa, utplavana, and līnatā (17.25–27).<sup>272</sup>

General lines of management after couching are dealt with (17.28–29).<sup>273</sup>

A.s.U.17.30 = A.h.U.14.22.

Defects of the śālākā are described and the disorders that may result from using such an instrument (17.31).<sup>274</sup>

A.s.U.17.32–34 = A.h.U.14.30–32.

Chapter eighteen (sarvākṣīrogavijñānīya) is identical with the chapter of the same title of the *Hṛdaya* (U.15).

Chapter nineteen (abhiṣyandapratīṣedha), corresponding to the first part of the sarvākṣīrogapratīṣedha chapter of the *Hṛdaya* (U.16), is partly in prose (19.1–8, 10–58), partly in verse (19.9, 59–80).

The subjects dealt with in the first part are: the management of the prodromal stage (19.2);<sup>275</sup> general treatment (19.3);<sup>276</sup> measures against abhiṣyanda with a predominance of vāta or pitta, and with a predominance of kapha (19.4);<sup>277</sup> measures against particular symptoms (19.5); avacūrṇana (19.6); another powder;<sup>278</sup> eyedrops (19.7); an añjana (19.8).

A.s.U.19.9 = A.h.U.16.6.

The chapter proceeds with recipes against abhiṣyanda and adhimantha due to vāta (19.10–28),<sup>279</sup> pitta (19.29–37),<sup>280</sup> kapha (19.38–52),<sup>281</sup> and rakta (19.53–58).<sup>282</sup>

Most eye diseases begin with abhiṣyanda; since this disease tends to corrupt the blood, one should subdue it as soon as possible (19.59).

The derivation of the terms syanda and adhimantha is discussed (19.60).

Several prescriptions are given against abhiṣyanda and other eye diseases (19.61–

80);<sup>283</sup> some formulae carry a name: *aparājītā vartī* (19.75–76), *ṣaṇmākṣikayoga* (19.79).<sup>284</sup>

Chapter twenty (*akṣipākapiḥpratiśedha*), corresponding to the second part of the *sarvākṣirogapratiśedha* chapter of the *Hṛdaya* (U.16), is largely in prose (20.1–33), with some verses at the end (20.34–42).

The first part of the chapter is concerned with prescriptions against various types of *akṣipāka* (20.2–23)<sup>285</sup> and against *amloṣṭa* (20.24).<sup>286</sup>

The second part begins with an enumeration of the eighteen chronic eye diseases which are called *pilla* (20.25).<sup>287</sup> These diseases should be managed first according to their own nature; when they have reached the chronic stage called *pilla*, common therapeutic measures are available (20.26).<sup>288</sup> These treatments are described (20.27–34).<sup>289</sup>

A.s.U.20.34 corresponds to A.h.U.16.58cd–59.<sup>290</sup>

A.s.U.20.35–42 = A.h.U.16.60–67.

Chapter twenty-one (*karṇarogavijñānīya*) is identical with the chapter of the same title of the *Hṛdaya* (U.17).

Chapter twenty-two (*karṇarogapratiśedha*), corresponding to the chapter of the same title of the *Hṛdaya* (U.18), is largely in prose (22.1–78), with a series of verses at the end (22.79–93).

The subjects dealt with in the first part are: the treatment of *karṇaśūla* due to *vāta* (22.2–14),<sup>291</sup> *pitta* (22.15–17),<sup>292</sup> *kapha* (22.18–20),<sup>293</sup> and *rakta* (22.21);<sup>294</sup> the treatment of *pakvakarṇaśūla* (22.22–25),<sup>295</sup> *karṇanāda* and *bādhīrya* (22.26–33),<sup>296</sup> *karṇapratīnāha* (22.34–35),<sup>297</sup> *kaṇḍū* and *śopha* (22.36),<sup>298</sup> *pūṭikarṇa* and *lṛmīkarṇa* (22.37),<sup>299</sup> *vidradhi*, *kṣatavidradhi*, *arśas* and *arbuda* (22.38),<sup>300</sup> *vidārikā* (22.39),<sup>301</sup> *pālīśoṣa* (22.40–43),<sup>302</sup> *tantrikā* (22.44),<sup>303</sup> *paripotaka* (22.45),<sup>304</sup> *utpāta* (22.46),<sup>305</sup> *unmantha* (22.47),<sup>306</sup> *duḥkhavardhana* (22.48),<sup>307</sup> and *lehiakāpitakās* (22.49);<sup>308</sup> general measures useful in disorders affecting the earlobes (*pālīroga*) (22.50); the treatment of various types of inflammation of the earlobes: *utputantī*, *śyāvā*, *kaṇḍūmatī*, *dahyamānā*, *vraṇitā*, *kṛṣā*, *grathitā*, and *srāvavatī* (22.51).

The second part deals with the repair of damage to the earlobes, due to either disease or violence (22.52).<sup>309</sup> Fifteen types of damage and the techniques suitable to their repair are mentioned: *cakranemi*,<sup>310</sup> *utpalabhedaka*, *kavāṭa*,<sup>311</sup> *ardhakavāṭa*, *vallūraka*, *vyāyojima*, *gaṇḍādhāra*,<sup>312</sup> *āsaṅgima*, *āhārya* and a variety called *nirvedhima*,<sup>313</sup> *śuṣkaśaṣkuli*,<sup>314</sup> *saṅkṣipta*, *hīna*, *vallī*, *yaṣṭī*, and *kākaṣṭha* (22.53–68).<sup>315</sup> The first ten of this series can be repaired by surgical means; the other five types are unsuitable to surgical repair (22.69).<sup>316</sup>

Remarks of a technical nature follow (22.70–73);<sup>317</sup> the blood should be examined in order to determine which of the *doṣas* may act as a corrupting factor (22.74–75); the surgical technique is described, followed by the after-treatment,<sup>318</sup> contra-indications (22.76), complications and their management (22.77–78).

A verse is concerned with contra-indications for surgery (22.79).<sup>319</sup>

A.s.U.22.80 = A.h.U.18.55.

The treatment of earlobes which do not heal well is dealt with (22.81).<sup>320</sup>

Procedures useful in elongating the earlobes are described (22.82–85).<sup>321</sup>

A.s.U.22.86–93 = A.h.U.16.59cd–66.

Chapter twenty-three (nāsāroḡavijñānīya) is identical with the chapter of the same title of the *Hṛdaya* (U.19).

Chapter twenty-four (nāsāroḡapratīṣedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.20), is in prose, except for one verse at the end.

The subjects dealt with are: the initial treatment of all kinds of pīṇasa (24.2);<sup>322</sup> pācana measures (24.3);<sup>323</sup> drugs to be smelled at;<sup>324</sup> the inhalation of medicinal smoke<sup>325</sup> (24.4); the general treatment of the pakva stage (of pīṇasa) (24.5);<sup>326</sup> things to be avoided (24.6);<sup>327</sup> the treatment of pratiśyāya due to vāta (24.7–11),<sup>328</sup> pitta (24.12–15),<sup>329</sup> kapha (24.16–19),<sup>330</sup> all three doṣas (24.20),<sup>331</sup> and blood (24.21);<sup>332</sup> the treatment of duṣṭapratīśyāya (24.22–27),<sup>333</sup> kṣavathu and puṭaka (24.28),<sup>334</sup> nāsāśoṣa and nāsānāha (24.29),<sup>335</sup> nāsāpāka, dīpti<sup>336</sup> and nāsāsrāva (24.30), avīṇasa<sup>337</sup> and pūtināsa (24.31–33),<sup>338</sup> pūyarakta (24.34),<sup>339</sup> arśas (24.35–38),<sup>340</sup> arbuda (24.39–40),<sup>341</sup> arśas and arbuda due to māṁsa, medas or all three doṣas (24.41).<sup>342</sup>

The concluding verse (24.42)<sup>343</sup> states that deficient surgical treatment (of arśas or arbuda) leads to renewed growths, and excessive treatment to particular complications.

Chapter twenty-five (mukharoḡavijñānīya) is identical with the chapter of the same title of the *Hṛdaya* (U.21).

Chapter twenty-six (mukharoḡapratīṣedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.22), is entirely in prose.

The subjects dealt with are: the treatment of khaṇḍauṣṭha (26.2–3),<sup>344</sup> oṣṭhakopa due to vāta (26.4),<sup>345</sup> pitta and a trauma (26.5),<sup>346</sup> blood (26.6),<sup>347</sup> kapha (26.6),<sup>348</sup> and medas (26.7),<sup>349</sup> the treatment of jalārbuda (26.8),<sup>350</sup> gaṇḍālajī (26.9),<sup>351</sup> śītadanta (26.10),<sup>352</sup> dantaharṣa (26.11),<sup>353</sup> dantacāla (26.12),<sup>354</sup> adhidantaka (26.13),<sup>355</sup> dantaśarkarā (26.14),<sup>356</sup> and kapālikā (26.15);<sup>357</sup> the treatment of lṛmidantaka; the extraction of teeth (26.16–22);<sup>358</sup> the treatment of śītāda after bloodletting (26.23);<sup>359</sup> the treatment of upakuśa (26.24),<sup>360</sup> dantapuppuṭaka (26.25),<sup>361</sup> dantavidradhi (26.26),<sup>362</sup> suśira (26.27),<sup>363</sup> adhimāṁsaka (26.28),<sup>364</sup> vidarbha (26.29),<sup>365</sup> and dantanāḍī (26.30–33);<sup>366</sup> the treatment of jihvākantakas due to vāta, pitta, and kapha (26.34);<sup>367</sup> the treatment of jihvālasa (26.35),<sup>368</sup> adhijihvā and upajihvā (26.36),<sup>369</sup> galaśuṇḍikā (26.37),<sup>370</sup> tālusaṁghāta, puppuṭa and kacchapa (26.38),<sup>371</sup> tālupāka (26.39),<sup>372</sup> and tāluśoṣa (26.40);<sup>373</sup> the treatment of diseases of the throat in general (26.41);<sup>374</sup> the treatment of rohiṇīkā due to vāta (26.42),<sup>375</sup> pitta (26.43),<sup>376</sup> blood (26.44),<sup>377</sup> and kapha (26.45);<sup>378</sup> the treatment required in cases of rohiṇīkā due to kapha is also appropriate in śālūka, vṛnda, tuṇḍikerī and gilāyu (26.46);<sup>379</sup> the treatment of galavidradhi (26.47),<sup>380</sup> galagaṇḍa due to vāta (26.48),<sup>381</sup> kapha (26.49)<sup>382</sup> and medas

(26.50);<sup>383</sup> the treatment of mukhapāka in general (26.51–55),<sup>384</sup> mukhapāka due to vāta (26.56),<sup>385</sup> pitta (26.57),<sup>386</sup> kapha (26.58),<sup>387</sup> blood,<sup>388</sup> and all three doṣas (26.59);<sup>389</sup> the treatment of arbuda (26.60)<sup>390</sup> and pūtimukha (26.61).<sup>391</sup>

A.s.U.26.62–65 = A.h.U.22.108–111.<sup>392</sup>

Chapter twenty-seven (śīrorogavijñānīya) is identical with the chapter of the same title of the *Hṛdaya* (U.23).

Chapter twenty-eight (śīrorogapratīṣedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.24), is partly in prose (28.1–48, 66), partly in verse (28.49–65, 67–81).

The subjects dealt with in prose are: the treatment of śīro'bhitāpa due to vāta (28.2–7),<sup>393</sup> ardhāvabhedaka (28.8),<sup>394</sup> sūryāvarta (28.9),<sup>395</sup> śīro'bhitāpa due to pitta and to blood (28.10–12),<sup>396</sup> śaṅkhaka (28.13),<sup>397</sup> śīro'bhitāpa due to kapha (28.14–18),<sup>398</sup> śīro'bhitāpa due to all three doṣas (28.19),<sup>399</sup> śīroroga due to parasites (kṛmija) (28.20–25),<sup>400</sup> śīraḥkampa (28.26),<sup>401</sup> upaśīrṣaka (28.27),<sup>402</sup> pītakās, arbuda and vidradhi (28.28–29),<sup>403</sup> arūṇṣikā (28.30–32),<sup>404</sup> dāraṇaka (28.33),<sup>405</sup> indralupta (28.34–37),<sup>406</sup> and khalati (28.38–41); the prescriptions to be employed in khalati are also useful in cases of palita (28.42); the treatment of palita (28.43–48).

A.s.U.28.49–50 = A.h.U.24.33–34ab.

A.s.U.28.51–52 = A.h.U.24.37–38ab.

A.s.U.28.53ab corresponds to A.h.U.24.38cd.

A.s.U.28.53cd = A.h.U.24.39ab.

A long formula, active against palita, follows (28.54–60).

A.s.U.28.61–62 = A.h.U.24.39cd–41ab.

More prescriptions come next: against greying of the hair (28.63–64), greying and baldness (28.65), greying and diseases of neck and head in general (28.66–68).<sup>407</sup>

A.s.U.28.69–81 = A.h.U.24.47–59.

Chapter twenty-nine (vraṇavibhaktiparijñānīya), corresponding to the first part of the chapter of the *Hṛdaya* called vraṇapratīṣedha (U. 25), is in prose, with the exception of one verse and a series of four verses at the end.

The subjects dealt with are: the etymology of vraṇa (29.2); the aetiological factors in the two types of vraṇa: nija and āgantū; the āgantū type develops into a nija type after the doṣas have gained a foothold in it (29.3);<sup>408</sup> vraṇas are also classified as duṣṭa by the doṣas or śuddha (29.4);<sup>409</sup> the general characteristics of a corrupted (duṣṭa) vraṇa (29.5);<sup>410</sup> fifteen varieties are distinguished (29.6);<sup>411</sup> the characteristics of a vraṇa corrupted by vāta (29.7),<sup>412</sup> pitta (29.8),<sup>413</sup> kapha (29.9),<sup>414</sup> blood (29.10),<sup>415</sup> and a combination of doṣas (29.11);<sup>416</sup> the characteristics of a śuddha vraṇa (29.12);<sup>417</sup> the eight substrates (āśaya) of vraṇas;<sup>418</sup> their exudates (āsrāva) are dependent on the type of substrate (29.13); the characteristics of the eight types of exudate (29.14–21);<sup>419</sup> the degree of curability of a vraṇa is dependent on its substrate and form; other criteria relating to ease or difficulty of management (29.22);<sup>420</sup> categories of patients in whom vraṇas can easily be cured (29.23);<sup>421</sup> the reasons for this curability (29.24);<sup>422</sup> the op-

posite groups of patients (29.25);<sup>423</sup> locations and other features determining that a vṛṇa will heal easily or with difficulty (29.26).<sup>424</sup>

A.s.U.29.27 = A.h.U.25.17.

The chapter proceeds with diseases in which vṛṇas are only amenable to palliative treatment (29.28).<sup>425</sup> Characteristics and accompanying diseases leading to incurability are enumerated (29.29).<sup>426</sup>

A.s.U.29.30–33 = A.h.U.25.19cd–23ab.

Chapter thirty (vṛṇapratiseḍha), corresponding to the second part of the chapter of the same title of the *Hṛdaya* (U.25), is partly in prose, partly in verse.

The subjects dealt with are: the treatment of a vṛṇa in the stage with swelling is like that of śvayathu; apatarpaṇa is the most important measure (30.2);<sup>427</sup> a verse on apatarpaṇa follows (30.3),<sup>428</sup> one on its beneficial results (30.4), and one on the usefulness of lepa, abhyaṅga and pariṣeka as general procedures in the treatment of vṛṇas (30.5);<sup>429</sup> the virtues of lepa (30.6);<sup>430</sup> the characteristics of and indications for the application of a pradeha, pralepa and kalka (30.7);<sup>431</sup> the ten types of ālepa: snai-hika, nirvāpaṇa, prasādana, stambhana, vilāyana, pācana, pīdana, śodhana, ropaṇa, and savamīkaraṇa (30.8); the indications for these ten ālepas (30.9); a pradeha should never be applied at night; the reasons for this prohibition (30.10); the reasons adduced by Pu-ṣkalāvata (30.11–12); a lepa should always be fresh; a lepa prepared on the day before its use has already lost its potency (30.13).

A.s.U.30.14a-d = A.h.U.25.25cd–26ab.

An ardhaśloka is added (30.14ef).<sup>432</sup>

Therapeutic measures useful after bloodletting are mentioned (30.15).

A.s.U.30.16a-d = A.h.U.25.29.

An ardhaśloka is added (30.16ef).

A.s.U.30.17 = A.h.U.25.30.

Various types of treatment are described: sveda (30.18),<sup>433</sup> a pralepa (30.19),<sup>434</sup> an utkārikā (30.20), an ālepa and upanāha (30.21), pariṣeka (30.22), vimlāpaṇa (30.23).

A.s.U.30.24 = A.h.U.25.32cd–33ab.

Ālepas are described (30.25).<sup>435</sup>

A.s.U.30.26 = A.h.U.25.34.

An upanāha is described (30.27).<sup>436</sup> The treatment suitable when the vṛṇa is going to ripen (pākābhimukha) is dealt with (30.28). Surgery is required when the vṛṇa is ripe (30.29).

A.s.U.30.29a-c = A.h.U.25.36a-c.

A.s.U.30.29d differs from A.h.U.25.36d.

Preparations suitable to make a ripe vṛṇa burst (dāraṇa) are dealt with (30.30).<sup>437</sup>

A.s.U.30.31–33 = A.h.U.25.38–40.

Vṛṇas which are not clean should be cleansed (30.34); kaṣāyas suitable to this purpose (30.35).<sup>438</sup>

A.s.U.30.36 = A.h.U.25.43.

Vartis (plugs) are described next (30.37–38), followed by prescriptions to be employed in deep vṛṇas due to pitta (30.39),<sup>439</sup> elevated types with little exudation (30.

40), vranas with much exudation, etc. (30.41), vranas associated with fatty tissue, etc. (30.42–43), with small openings, containing a foreign body, etc. (30.44).<sup>440</sup>

A.s.U.30.45ab = A.h.U.25.45ab.

The prose part of 30.45 agrees with A.h.U.25.45cd.

A.s.U.30.46–47 = A.h.U.25.46.

A recipe follows (30.48).<sup>441</sup>

A.s.U.30.49–50 = A.h.U.25.47cd–48.

A recipe for avasādana purposes (30.51),<sup>442</sup> prescriptions to be employed in firm, painful vranas (30.52–53), ghees for all kinds of vranas (30.54), and recipes making very soft vranas firm (30.55), are added.

A.s.U.30.56–57 = A.h.U.25.49cd–51.

Purified vranas are to be treated with drugs promoting granulation (ropaṇa); seven prakṣālaṇa prescriptions are given for this purpose (30.58).

Prescriptions useful in various types of corrupted vranas are given next (30.59–66).<sup>443</sup>

A.s.U.30.67–69 = A.h.U.25.53cd–57.

Ropaṇa measures are discussed (30.70–75),<sup>444</sup> followed by a lepa adjusting the colour of the new tissue (varṇasādhana) (30.76).

A.s.U.30.77–78 = A.h.U.25.59cd–61ab.

A recipe for adjusting the colour of the new skin is added (30.79).<sup>445</sup>

A.s.U.30.80 = A.h.U.25.61cd–62ab.

More recipes are added (30.81–86).<sup>446</sup>

A.s.U.30.87 = A.h.U.25.62cd–63.

The concluding verse deals with dietary rules (30.88).

Chapter thirty-one (sadyovraṇapratīṣedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.26), is largely in verse, with a few prose passages at the beginning (31.1–5).

The subjects dealt with first are: sadyovraṇas (wounds) are caused by various kinds of trauma (abhighāta); a synonym of sadyovraṇa is kṣata; sadyovraṇas are of three main types: chinna, viddha and piccita (31.2); the chinna type is of five varieties: ghrīṣṭa, when the skin only is injured, avakṛta, when the flesh is also affected to some extent, vicchinna, when the wound is deep and large, vilambita, when part of the bones, snāyus, etc., have remained (intact), and pātita, when a limb or part of it is completely cut off (31.3); the viddha type is of eight varieties: anuviddha, when the foreign body has penetrated into muscular tissue, utturuḍita, when it has reached the other side and elevated the skin, atividhha, when it comes out partly at the other side, and nirvidhha, when it has come out completely after piercing some part of the body; four more varieties are caused by large weapons, such as spears, when these, hitting the trunk, injure the viscera: anubhinna, bhinnotturuḍita, atibhinna and nirbhinna (31.4); wounds by the crushing of parts of the body containing bones are called piccita; these are of two kinds, dependent on the presence or absence of an open wound (vraṇa); those without an open wound will be discussed in the chapter on bhāṅga (31.5).<sup>447</sup>

A.s.U.31.6–13 = A.h.U.26.6–13.

Some verses on the treatment of corrupted (duṣṭa) wounds are added (31.14–16).<sup>448</sup>

A.s.U.31.17–51 = A.h.U.26.14–49.

The recipe for an oil promoting wound healing is added (31.52).

A.s.U.31.53–61 = A.h.U.26.50–58.

The concluding verse (31.62) states that all wounds, in spite of their differences, can be regarded and treated as varieties of the three main types mentioned, in the same way as all disorders arise from accumulation, etc., of the three doṣas.

Chapter thirty-two (bhaṅgapratīṣedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.27), is partly in prose (32.1–20), partly in verse (32.21–73).

The passages in prose deal with: the several kinds of asthībhaṅga are caused by various kinds of trauma (abhighāta) (32.2);<sup>449</sup> bhaṅga is of two main types: it affects a joint or occurs without affecting a joint; dislocations (sandhimukta) are of six varieties: utpiṣṭa, viśliṣṭa, avakṣipta, atikṣipta, tiryakṣipta, and vivartita (32.3);<sup>450</sup> the general symptoms found in dislocations (32.4);<sup>451</sup> the symptoms of the six varieties (32.5);<sup>452</sup> fractures (asandhibhagna) are of twelve varieties: karkaṭaka, vakra, sphuṭita, vellita, asthicchallikā, aśvakarṇa, piccita, dārita, cūrṇita, atipātita, śeṣita, and majjānugata (32.6);<sup>453</sup> the general symptoms of fractures (32.7);<sup>454</sup> the characteristics of karkaṭaka (32.8), vakra, sphuṭita (32.9), vellitaka (32.10),<sup>455</sup> asthicchallikā (32.11), aśvakarṇa (32.12), piccita (32.13), dārita (32.14),<sup>456</sup> cūrṇita (32.15), atipātita (32.16), śeṣita<sup>457</sup> (32.17), and majjānugata (32.18);<sup>458</sup> the last five of these are difficult to cure in particular groups of patients (32.19);<sup>459</sup> incurable dislocations and fractures (32.20).<sup>460</sup>

A.s.U.32.21–32 = A.h.U.27.11cd–24.

An ardhaśloka is added (32.33ab).

A.s.U.32.33cd = A.h.U.27.25ab.

An additional verse is concerned with the treatment of viśliṣṭa and utpiṣṭa dislocations, and with that of complications (32.34).

A.s.U.32.35–36 = A.h.U.27.25cd–27ab.

The treatment of special cases is dealt with in a series of additional verses (32.37–55).<sup>461</sup>

A.s.U.32.56–64 = A.h.U.27.27cd–35.

A.s.U.32.65–66 = A.h.U.27.9–11ab.

The characteristics of a healed bhagna are described in an added verse (32.67).<sup>462</sup>

A.s.U.32.68–73 = A.h.U.27.36–41.

Chapter thirty-three (bhagandarapratīṣedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.28), is partly in verse, partly in prose.

A.s.U.33.2–26 = A.h.U.28.1–22ab.

Unripe (apakva) piṭākās require a type of treatment that prevents pāka occurring in them (33.27).<sup>463</sup> Ripe piṭākās should, after proper preparation of the patient, be examined in the same way as haemorrhoids (33.28).<sup>464</sup>

The surgical treatment of fistulas with an internal or external opening is dealt with (33.29),<sup>465</sup> followed by the after-treatment (33.30).<sup>466</sup> Rules for the management of various types of anal fistulas are given (33.31).<sup>467</sup> The treatment of the parikṣepin type



(33.32),<sup>468</sup> arśobhagandara (33.33),<sup>469</sup> and the unmārgin type (33.34)<sup>470</sup> is discussed.

A.s.U.33.35–38 = A.h.U.28.30–33ab.

A.s.U.33.39 replaces A.h.U.28.33cd.<sup>471</sup>

Recipes come next: lepa (33.40–42),<sup>472</sup> a kalka (33.43), and oils (33.44–46).<sup>473</sup>

Ā.s.U.33.47–48 = A.h.U.28.37–38.<sup>474</sup>

A.s.U.33.49–53 = A.h.U.28.40–44.

Chapter thirty-four (granthyarbudaślīpadāpacīnāḍīvijñāniya) is identical with the chapter of the same title of the *Hṛdaya* (U.29).

Chapter thirty-five (granthyādi pratiṣedha), corresponding to the granthyarbudaślīpadāpacīnāḍī pratiṣedha chapter of the *Hṛdaya* (U.30), is largely in prose; verses are found at 35.18, 36, 39–40.

The subjects dealt with are: the general treatment of granthi (35.2–5);<sup>475</sup> the treatment of granthi due to vāta (35.6–7),<sup>476</sup> pitta and blood (35.8),<sup>477</sup> and kapha (35.9–10);<sup>478</sup> the treatment of māṃsa-, varṇa-, medogranthi (35.11–12),<sup>479</sup> and sirāgranthi (35.13);<sup>480</sup> the treatment of arbuda due to vāta (35.14), pitta (35.15), kapha (35.16), and medas; measures against all types of arbuda (35.17–18);<sup>481</sup> the treatment of ślīpada due to vāta (35.19),<sup>482</sup> pitta (35.20)<sup>483</sup> and kapha (35.21);<sup>484</sup> the treatment of ślīpada and apacī with caustics (35.22);<sup>485</sup> other prescriptions against ślīpada (35.23); the treatment of gaṇḍamālā (35.24–25), gaṇḍamālā, apacī and other disorders (35.26–27),<sup>486</sup> apacī (35.28)<sup>487</sup>, gaṇḍamālā and apacī (35.29–30);<sup>488</sup> the treatment of fistulas (nāḍī) due to vāta (35.31),<sup>489</sup> pitta (35.32),<sup>490</sup> kapha (35.33),<sup>491</sup> due to a foreign body (śalya) (35.34),<sup>492</sup> and those not caused by some sharp object (āśastrakṛta) (35.35).<sup>493</sup>

A.s.U.35.36 = A.h.U.30.36cd–37ab.

Prescriptions against all kinds of fistula (gati) are given next (35.37–38), followed by a recipe promoting the healing process (35.39), and that of an oil against nāḍī and apacī (35.40).<sup>494</sup>

Chapter thirty-six (kṣudrarogavijñāniya) is identical with the chapter of the same title of the *Hṛdaya* (U.31).

Chapter thirty-seven (kṣudrarogapratīṣedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.32), is in prose.

The subjects dealt with are: the treatment of unripe ajagallikā (37.2)<sup>495</sup> and the unripe stages of yavaprakhyā up to pāṣāṇagardabha (37.3);<sup>496</sup> the treatment of the same disorders, together with sahajā ajagallikā, when ripe (37.4);<sup>497</sup> the treatment of mukhadūṣikā (37.5),<sup>498</sup> padmakaṇṭhaka (37.6),<sup>499</sup> vivṛtā up to jālagardabha, along with irivellikā (37.7–8),<sup>500</sup> agnirohiṇī (37.9),<sup>501</sup> vidārikā (37.10),<sup>502</sup> śarkarārbuda and medo'rbuda (37.11),<sup>503</sup> valmīka (37.12–15),<sup>504</sup> kadara (37.16),<sup>505</sup> ruddhaguda (37.17),<sup>506</sup> cippa (37.18–19),<sup>507</sup> kunakha (37.20),<sup>508</sup> alasa (37.21),<sup>509</sup> tilakālaka, maṣa, carmakīla, jatumaṇi (37.22),<sup>510</sup> lāñchana, vyaṅga, and nīlikā (37.23);<sup>511</sup> the treatment of vyaṅga in general (37.24), vyaṅga due to vāta (37.25–26), pitta (37.27–30), kapha (37.31–32), and blood (37.33);<sup>512</sup> the treatment of prasupti (37.34),<sup>513</sup> utkoṭha and koṭha (37.35).<sup>514</sup>

Chapter thirty-eight (guhyarogavijñānīya) is identical with the chapter of the same title of the *Hṛdaya* (U.33).

Chapter thirty-nine (guhyarogapratīṣedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.34), is partly in prose, partly in verse.

The subjects are: the general treatment of upadaṁśa (39.2–10a);<sup>515</sup> the treatment of upadaṁśa due to vāta (39.10b–11), pitta (39.12–13), and kapha (39.14–15).<sup>516</sup>

A.s.U.39.16 = A.h.U.34.7.

The two remaining types of upadaṁśa (due to blood and to all three doṣas) should be treated after warning the patient that cure will not be achieved (39.17).<sup>517</sup>

The chapter proceeds with the treatment of arśas (39.18),<sup>518</sup> sarśapikā (39.19),<sup>519</sup> avamantha (39.20),<sup>520</sup> kumbhikā (39.21),<sup>521</sup> alājī (39.22),<sup>522</sup> uttamā (39.23),<sup>523</sup> puskarikā, saṁvyūdhā, sparśahāni, tvakpāka (39.24),<sup>524</sup> mṛdita (39.25),<sup>525</sup> aṣṭhīlikā (39.26),<sup>526</sup> nivṛtta (39.27),<sup>527</sup> avapāṭikā (39.28),<sup>528</sup> niruddhamāṇi (39.29),<sup>529</sup> grathita, śataponaka, śarkarārbuda<sup>530</sup> (39.30),<sup>531</sup> and all types (of piṭakā) (39.31).<sup>532</sup>

The next prose section is concerned with the treatment of yonivyāpad due to vāta (39.32), vāta and pitta (39.33), vāta (39.34);<sup>533</sup> the treatment of yonīśūla (39.35–40);<sup>534</sup> the treatment of aticaraṇā (39.41–42), prākaraṇā, śuṣkā, viplutā, karṇinī (39.43), viplutā (39.44), karṇinī (39.45),<sup>535</sup> udāvṛtta,<sup>536</sup> mahāyoni,<sup>537</sup> yonisraṁsa (39.46), jātaghnī, raktayoni, and raktakṣayā (39.47).

The remaining part of the chapter, in verse, deals with: the general treatment of yonivyāpad due to vāta, pitta, kapha, and combinations of doṣas (39.48–49);<sup>538</sup> the treatment of a yoni which is duḥsthitā, jihmā, saṁvṛtā, niḥṣṛta, vivṛtā, sthānāpavṛtā (39.50–51);<sup>539</sup> the treatment of all cases of yonivyāpad with pañcakarman and various other general measures (39.52–53);<sup>540</sup> the specific treatment of disorders due to vāta, pitta, and kapha (39.54);<sup>541</sup> the treatment of vāminī and āplutā (39.55),<sup>542</sup> pariplutā and upaplutā (39.56),<sup>543</sup> mahāyoni (39.57),<sup>544</sup> and yonisraṁsa (39.58);<sup>545</sup> all the measures against vāta disorders are useful in yonivyāpad too, particularly in mahāyoni (39.59).<sup>546</sup>

A.s.U.39.60 = A.h.U.34.23.

A.s.U.39.61–67 = A.h.U.34.35–41.

A.s.U.39.68 = A.h.U.34.44cd–45ab.

The chapter goes on with the treatment of asṛgdara due to vāta (39.69–70),<sup>547</sup> pitta (39.71–72),<sup>548</sup> and kapha (39.73).<sup>549</sup>

A.s.U.39.74–78 = A.h.U.34.45cd–50ab.

The measures employed in garbhasrāva are useful in pradara too (39.79).<sup>550</sup>

Prescriptions for the treatment of raktakṣayā (39.80) and corruption of the yoni by kapha (39.81–88)<sup>551</sup> follow.

A.s.U.39.89–91 = A.h.U.34.51–54ab.

Prescriptions useful in yonisrāva are described (39.92–100).<sup>552</sup>

A.s.U.39.101–111 = A.h.U.34.55cd–67.

Chapter forty (viṣapratīṣedha), corresponding to the chapter of the same title of the *Hṛdaya* (U.35), is partly in prose (40.1–13), but mainly in verse (40.14–180).

The subjects dealt with are: the mythical origin of poison, which arose during the churning of the ocean; Brahmā, wishing to avert the dangers inherent in it and to preserve its potential usefulness, gave it a place in members of the plant kingdom; this (type of) poison is called sthāvara (40.2–4); Viṣṇu placed poison in snakes and other animals; this (type of) poison is called jaṅgama (40.5);<sup>553</sup> the ten sources of sthāvara poisons (40.6);<sup>554</sup> examples of these ten groups (40.7);<sup>555</sup> the effects brought about by each of these groups; effects brought about by all vegetable poisons,<sup>556</sup> but in particular by the kandaviṣas, which are sharp (tikṣṇa) and quick in their actions; the other nine groups are usually lethal after some time (40.8);<sup>557</sup> vegetable poisons are also called maula, because (the life of) a plant depends on its roots (mūla) (40.9); the sixteen sources of poisons of animal origin;<sup>558</sup> poisonous animals are snakes, kīṭas, kaṇabhas, etc.;<sup>559</sup> the disorders caused by their poisons and the treatment of these disorders is going to be discussed (40.10); the general effects of poisons of animal origin (40.11);<sup>560</sup> the ten properties of poisons (40.12);<sup>561</sup> the effects of each of these properties;<sup>562</sup> caution is necessary for the avoidance of poisons present in articles of food; poisons cannot be digested and are therefore lethal;<sup>563</sup> even when the symptoms have disappeared thanks to mantras and drugs, they may flare up again (40.13).

A.s.U.40.14–15 = A.h.U.35.5cd–7ab.

A.s.U.40.16ab is related to A.h.U.35.8cd.

A.s.U.40.16cd–17 = A.h.U.35.9–10.

The way is described in which a poison, after corrupting the blood, pervades the whole body and produces many symptoms; the doṣas become powerful during this process (40.18–20). A poison reaches that doṣa and its respective seats first to which it is related in its properties (40.21); those disorders which usually arise from that doṣa manifest themselves first, but disorders caused by another doṣa may also develop (40.22).

Symptoms caused by a poison staying in the head are described; other symptoms arise similarly when it resides elsewhere (40.23–24). Pervading the whole body and obstructing the channels, a poison makes the prāṇas leave the body (40.25).

Places where the poison stays in particular are dependent on the way it has entered an organism;<sup>564</sup> the flesh of animals that died from poison should not be eaten (40.26).<sup>565</sup>

The symptoms caused by poisoning depend on the doṣa(s) it excites; the treatment should be initiated in conformity with this principle (40.27).

The next subject is formed by the stages (vega) of poisoning. Seven stages are said to exist, but Punarvasu distinguishes a number of eight (40.28). Descriptions follow of the series of eight stages (of Punarvasu) (40.29–31), the seven stages of Nagnajit (40.32–33), Videhapati (40.34), and Ālambāyana (40.35). Dhanvantari is said to acknowledge, in cases of snake-bite, the same stages as Ālambāyana, with this difference that a stage affecting the koṣṭha replaces that affecting the snāyus (40.36).<sup>566</sup>

The relationship between the vegas and the kalās is explained (40.37–38).<sup>567</sup> Everything discussed agrees with the teachings of the muni (40.39).

A.s.U.40.40–44 = A.h.U.35.33–37.

A.s.U.40.45–57 = A.h.U.35.11–23.

Agadas, devised by sages in former times, will be discussed next (40.58): the agada called saṃjīvana, devised by Svayambhū (40.59–67), the yāpanāgada (40.68–72), sūryodayāgada (40.73–74), other agadas (40.75–80),<sup>568</sup> brāhmāgada (40.81), prajāpatyāgada (40.82), the agada of Cāṇakya (40.83),<sup>569</sup> daśāṅgāgada (40.84),<sup>570</sup> two more agadas (4.85–86), an agada made by Śiva (40.87), the auśanasāgada (40.88), another agada (40.89).

Two prescriptions against mūlaviṣas are given (40.90).

Haridrā is said to be the best drug active against poisons (40.91).

Prescriptions for a collyrium (40.92) and an errhine (40.93) follow.

The preparation, indications and actions are described of the gandhahastyagada (40.94–100),<sup>571</sup> the ajitāgada (40.101), bālasūryāgada (40.102), and māheśvarayoga (40.103) come next.

A.s.U.40.104–121 = A.h.U.35.40cd–59.

More prescriptions against gara are added (40.122–126), followed by prescriptions against poisoning in general (40.127–140), amongst which are found the ajeyaghṛta (40.130–132)<sup>572</sup> and amṛtasarpis (40.133).<sup>573</sup>

The symptoms and treatment of poisoning by the ingestion of haritāla (40.141–143), ghurghūraka (= dhattūra) (40.144) and kodrava (40.145–146) are described.

The treatment of poisoning by dūṣṭiṣa is dealt with.

A.s.U.40.147–148 = A.h.U.35.38–40ab.

A purgative ascribed to Kāśyapa is added (40.149).

More purgatives useful in poisoning in general are referred to (40.150).

The preparation of a compound drug, active against all kinds of poisoning and many other disorders, is described (40.151–155).

The relative forces of drugs and mantras in the treatment of poisoning are discussed (40.156–159).

A.s.U.40.160–168 = A.h.U.35.60–70ab.

The treatment required in special cases, where the poison stays in the blood (40.169)<sup>574</sup> or in the head (40.170), or where vāta is blocked (40.171–172),<sup>575</sup> is described. Generally, the doṣa normally present in the seat reached by the poison, should be counteracted,<sup>576</sup> while taking into consideration the nature of the poison (40.173). The management of cases where the poison stays in a seat of kapha, pitta or vāta (40.174–178)<sup>577</sup> is described.

Complications should be treated in conformity with their nature (40.179).

A.s.U.40.180 = A.h.U.35.70cd–71.

Chapter forty-one (sarpaviṣavijñānīya), corresponding to the first part of the sarpaviṣapratishedha chapter of the *Hṛdaya* (U.36), is in verse.

Serpents are divided into two categories: divine (divya) and earthly (bhauma); the divine serpents are Vāsuki, Takṣaka, Ananta, Sagara, Śagarālaya, Nanda, Ūpananda, etc.; their actions are mentioned; their worship is the only remedy against the bad effects of their gaze and breath (41.2–4).<sup>578</sup>

A.s.U.41.5–11 = A.h.U.36.1–8ab.

The sixteen non-poisonous snakes are enumerated:<sup>579</sup> divyaka, ajagara, sarpa,<sup>580</sup>

paṭṭika,<sup>581</sup> vṛkṣaśāyika,<sup>582</sup> śakalin,<sup>583</sup> puṣpaka,<sup>584</sup> kṣīrin,<sup>585</sup> lāsinī,<sup>586</sup> sārāsāhika,<sup>587</sup> varṣāhika, jyotiratha, śukavaktra,<sup>588</sup> balāhaka,<sup>589</sup> gajabhakṣa,<sup>590</sup> and plavodvāhin<sup>591</sup> (41.12–13).<sup>592</sup>

A female snake is able to conceive in the month Jyeṣṭha, copulates in Āṣāḍha, and lays two hundred and forty eggs in Kārtika (41.14–15ab). Eggs of the colour of the karketana gem produce males, variegated eggs with long, red stripes produce females, and eggs of the colour of a śirīṣa flower give rise to napuṃsakas (41.15b–16c). Four fangs arise on the seventh day after birth; poison is present from the fourteenth day onwards (41.16c–f). The colours of the four fangs are described and the number of drops of poison present in each of them; a drop (bindu) measures a mudga in this case (41.17–18ab).<sup>593</sup> This is only valid for poisonous snakes; non-poisonous snakes possess forty-four fangs (41.18b–f).

Snakes reach an age of 120 years. Gonasa snakes, however, who arise from the nostrils of cattle, may live for five hundred years (41.19).

The characteristics of male, female and klība (= napuṃsaka) snakes<sup>594</sup> are described (41.20–21)<sup>595</sup> and the periods of time on which they preferably bite (41.22).

The characteristics of brāhmaṇa (41.23–24), kṣatriya (41.25–26), vaiśya (41.27) and śūdra (41.28) snakes are dealt with,<sup>596</sup> the periods of time of their moving about (41.29a–c), the position, relative to the victim, from which they attack (41.29d–30a), and the doṣas excited by their bites (41.30). The part bitten by each of the four groups of snakes has a characteristic smell (41.31). Their food consists of air (vāyu), mice, frogs, and anything eatable respectively (41.32).

A.s.U.41.33–42 = A.h.U.36.8cd–17.

The signs characteristic of a bite of a poisonous and a non-poisonous snake are mentioned (41.43–44a),<sup>597</sup> followed by the characteristics of and disorders caused by the bite of a phaṇāvānt (= darvīkara) (41.44b–48), maṇḍalin (41.49–51), rājīmānt (41.52–54), and vyantara (41.55a).<sup>598</sup> The signs pointing to a bite by a male, female and napuṃsaka snake (41.55b–57ab), an old snake, a young one, a kumāra, a kumārī, a pregnant snake, and one who just laid eggs are described (41.57cd–59).<sup>599</sup>

The vegas, in relation to blood, muscular tissue and the other elements of the body, constitute the next subject (41.60).

A.s.U.41.61–71 = A.h.U.36.19–30ab.

Medicines, even mantras, are of no avail against the bites of particular snakes; the characteristics of these snakes are described; persons bitten by them are sometimes saved by having recourse to religious ways of healing (41.72–75).<sup>600</sup>

A.s.U.41.76–79 = A.h.U.36.30cd–34ab.

Signs which point to the approach of death are enumerated (41.80), followed by those which indicate that a patient should be given up (41.81–82).

A.s.U.41.83–86 = A.h.U.36.34cd–38ab.

Chapter forty-two (sarpaṇṣapratīṣedha), corresponding to the second part of the chapter of the same title of the *Hṛdaya* (U.36), is in verse.

A.s.U.42.2–5 = A.h.U.36.38cd–42.

The ariṣṭā should not be too tight or loose; disadvantages of these badly tied ariṣṭās

are mentioned (42.6).

A.s.U.42.7–8cd = A.h.U.36.43–44.

Excision of the bite should not be carried out when it is situated in a marman or joint, due to the danger of ensuing death or disability (42.8ef).

A.s.U.42.9–13ab = A.h.U.36.45–49ab.

Corruption of the blood will certainly result in death (42.13cd).

When the flow of blood is deficient or excessive, the same measures are required as those used under the same circumstances in bloodletting (42.14).

A.s.U.42.15–18 = A.h.U.36.49cd–52.<sup>601</sup>

A.s.U.42.19 = A.h.U.36.53cd–54ab.

Prescriptions for particular groups of patients are added (42.20–22).<sup>602</sup>

A.s.U.42.23–25 = A.h.U.36.54cd–57ab.

The recipe of an agada is added (42.26).

A.s.U.42.27–41 = A.h.U.36.57cd–73.

Recipes are given which are useful in snake-bites in general (42.42), when the poison has reached the rasa (42.43–45),<sup>603</sup> the head (42.46–47),<sup>604</sup> the eyes (42.48–52),<sup>605</sup> the throat (42.53),<sup>606</sup> the pakvāśaya (42.54),<sup>607</sup> the throat (42.55), the head (42.56–57),<sup>608</sup> or the eyes (42.58–59).

The treatment of cases where the poison stays in a seat of kapha (42.60–62), pitta (42.63–67), or vāta (42.68) is dealt with.

A.s.U.42.69–78 = A.h.U.36.74–83.

The recipes of two agadas follow (42.79–86).<sup>609</sup>

A.s.U.42.87–88 = A.h.U.36.84–85.

The recipe of a mahāgada is added (42.89), followed by that of a drug to be smeared on drugs, banners, etc. (42.90–94).<sup>610</sup>

A.s.U.42.95–99 = A.h.U.36.86–90ab.

Malevolent beings should be warded off in cases of poisoning (42.100). The means to achieve this end are described (42.101–106).

A.s.U.42.107–109 = A.h.U.36.90cd–93.

Chapter forty-three (kīṭaviṣapratīṣedha), corresponding to the first part of the kīṭalūtā-diviṣapratīṣedha chapter of the *Hṛdaya* (U.37), is in verse.

A.s.U.43.2 = A.h.U.37.1.

The eighteen vāyavya kīṭas, which provoke vāta, are enumerated:<sup>611</sup> kumbhīnaśa, tuṇḍikerī, śrṅgī, śatakulīraka, uccitīṅga, agnināman, cicciṭāṅga,<sup>612</sup> mayūraka,<sup>613</sup> ahija,<sup>614</sup> rabhraka, āvarta, śārikāmukha, vaidala, the two śārāvakurdas,<sup>615</sup> puruṣa, citraśīrṣa, and jāraka<sup>616</sup> (43.3–4),<sup>617</sup> followed by the twenty-four āgneya kīṭas, which provoke pitta (43.5–7),<sup>618</sup> the thirteen saumya kīṭas, which provoke kapha, are:<sup>619</sup> viśvambhara, pañcaśuṣka,<sup>620</sup> pañcakṛṣṇa, kokila, sthairyaka,<sup>621</sup> pracalāka,<sup>622</sup> vaṭa-bha,<sup>623</sup> kiṭibha, jaṭī,<sup>624</sup> sūcīmukha, kṛṣṇagodhā, dabhra,<sup>625</sup> and kāṣāyavāsika (43.8–9).<sup>626</sup>

The twelve agnikīṭas which carry away the prāṇas are enumerated (43.10–11).<sup>627</sup>

A.s.U.43.12–15 = A.h.U.37.2–5.

The means of attacking employed by vātika, paittika, ślaishmika and samnipātika

kīṭas are mentioned (43.16).

The next subjects are: the characteristics of the local injury; the more general disorders caused by the poison of a kaṇabha (43.17),<sup>628</sup> trikaṇṭaka (43.18), kṛkalāsa,<sup>629</sup> dambha (43.19), dardura (= maṇḍūka) (43.20),<sup>630</sup> matsya,<sup>631</sup> jalaaukas, viśvambhara (43.21),<sup>632</sup> śatapadī (43.22),<sup>633</sup> gṛhagodhikā (43.23),<sup>634</sup> maśaka (43.24),<sup>635</sup> makṣikā,<sup>636</sup> sthālikā<sup>637</sup> (43.25), and pipīlikā (43.26–27).<sup>638</sup>

A.s.U.43.28–37 = A.h.U.37.6–14ab.

A.s.U.43.38a-c replaces A.h.U.37.14cd.

Distinctions among kaṇabhas, etc., though actually present, are not mentioned, because the disorders they cause and the treatment of these disorders are similar (43.38d-f).

A.s.U.43.39–54 = A.h.U.37.15–28.

Additional verses deal with : mahāsneha, milk and honey, mixed together, subdue the poison of kīṭas (43.55ab); a fumigation against poisonous kīṭas and scorpions (43.55c-f); prescriptions against the poison of various animals (43.56), viśvambharas, etc. (43.57–59),<sup>639</sup> śatapadīs (43.60),<sup>640</sup> gṛhagodhikās (43.61),<sup>641</sup> all poisons (43.62),<sup>642</sup> the poison of makṣikās (43.63), and that of varatīs (43.64).

A.s.U.43.65–69ab = A.h.U.37.29–33.

An ardhāśloka is added to the last prescription of the series (43.69cd). A second ardhāśloka (43.70ab) gives a recipe against śūla caused by a scorpion sting.

A.s.U.43.70c-f = A.h.U.37.34.

Two recipes against scorpion stings are added (43.71–72).

A.s.U.43.73–75 = A.h.U.37.35–37ab.

A prescription against scorpion (ali) poison is added (43.76).

A.s.U.43.77 = A.h.U.37.37cd–38.

Additional verses deal with the treatment of itching and weals (koṭha), symptoms which disappear spontaneously within five days (43.78–80), a prescription alleviating these symptoms (43.81), and a lepa against a particular cluster of serious symptoms (43.82–83).

A.s.U.43.84–86 = A.h.U.37.39–41.

A prescription against the poison of uccīṭiṅgas is added (43.87),<sup>643</sup> and one against the poison of scorpions, undurus (rats), spiders and snakes (43.88–89).<sup>644</sup>

A.s.U.43.90 = A.h.U.37.43.

Chapter forty-four (lūtāpratīṣedha), corresponding to the second part of the kīṭālūtā-diviśāpratīṣedha chapter of the *Hṛdaya* (U. 37), is entirely in verse.

The subjects dealt with are: three stories on the origin of lūtās (spiders): they arose from drops of sweat fallen on blades of grass from the forehead of Vasiṣṭha when he was filled with anger towards Viśvāmitra (44.2);<sup>645</sup> they arose from sparks of fire from the bodies of the Asuras who were killed during the burning of the Khāṇḍava forest<sup>646</sup> (44.3); others, disagreeing, assert that lūtās are blisters, caused by poisonous substances (viśasphoṭa), which arise from mixtures of corrupted ingested food (44.4a-d); the relationship between lūtās and kīṭas (44.4d-f); lūtās are more dangerous than kīṭas;<sup>647</sup> their bites are lethal when left untreated; their poison is of

three grades and kills within seven days, ten days or half a lunar month (44.5);<sup>648</sup> the seven āgneya lūtās, which arise from sweat, are: kapilā, agnimukhī, pītā, padmā, mūtrā, sitā, and asitā; these types cause pitta disorders (44.6); the seven saumya lūtās, which arise from eggs, are: pāṇḍurā, raktapadikā, bhṛṅgā, piṅgā, trimañḍalā, pūti, and vīrā; these types cause kapha disorders (44.7); the seven vāyavya lūtās, which cause vāta disorders, are: kumudā, alaviṣā, raktā, citrā, santānī, mecakā, kasanā, and udbhidā (44.8); the seven lūtās of a mixed nature, which are upapādikās (having additional legs), are: kākāṇḍī, eṇapadī, lājā, vaidehī, jālinī, mālāṅguṣā, and suvarṇā; like a flaming fire, (their poisons) quickly pervade the whole body and cause disorders of a saṃnipāta type which are incurable; the disorders caused by the other lūtās are curable with difficulty (44.9–10);<sup>649</sup> the āgneya types bite during the bright, the saumya types during the dark half of the month, the vāyavya types in the nights of new and full moon, while the mixed types always bite (44.11); the local signs of a lesion caused by a lūtā in general (44.12–14);<sup>650</sup> poison is present in a lūtā's breath, fangs, faeces, urine, semen, saliva, claws, and ārtava, but it is emitted in particular from its mouth parts (44.15);<sup>651</sup> the characteristics of lesions caused by poison from these eight sources (44.16–20); lūtās make lesions in the body upwards of the navel, kīṭas both upwards and downwards of it; clothing, etc., touched by their poison, should be cast aside, because disorders would result from their use (44.21);<sup>652</sup> the characteristics of a lūtā bite continue for more than half a day (44.22);<sup>653</sup> the signs present during the first (44.23), second (44.24), third (44.25) and fourth day (44.26); various disorders arise on the fifth day; the poison pervades the marmans on the sixth day; death ensues on the seventh day (44.27);<sup>654</sup> this course applies to the most dangerous lūtās; the other types cause, dependent on their nature, milder symptoms (44.28);<sup>655</sup> alleviation of the condition may arise in all cases during the twenty-first day (44.29);<sup>656</sup> local signs and general symptoms caused by paittika, ślaiṣmika and vātika lūtās (44.30);<sup>657</sup> the same characteristics as those in snake-bites point to the predominance of a particular doṣa (44.31);<sup>658</sup> all lūtās are associated with all three doṣas, but a particular one may dominate the syndrome present (44.32).<sup>659</sup>

A.s.U.44.33–34 = A.h.U.37.51cd–53.

A.s.U.44.35–38ab = A.h.U.37.66cd–69.

A.s.U.44.38cd replaces A.h.U.37.70ab.

The chapter goes on with prescriptions for lepas to be employed in lesions caused by a paittika (44.39–42), ślaiṣmika (44.43–45) and vātika (44.46–49) lūtā; vegetable drugs useful in all cases (44.50); emetics to be used against strong poisons (44.51–52);<sup>660</sup> purgatives (44.53–54);<sup>661</sup> the diet after these purificatory procedures (44.55–56); the preparation of a ghee to be used in a clyster when vāta disorders are present; the diet after this treatment (44.57–61); errhines (44.62–65); collyria (44.66–69); other preparations (44.70–74); agadas (44.75–77); a prescription against various kinds of poison (44.78–79).

A.s.U.44.80–83 = A.h.U.37.77cd–80.

The number of karṇikās (sprouts of granulation tissue) depends on the number of drops of semen (śukra) which enter a female lūtā's body during the fertile period (44.84). Prescriptions aiming at purification and healing of the wound (44.85–88),



and restoration of the skin (44.89), are described. Renewed growth of hair may be stimulated in the same way as mentioned for sores in general.

A.s.U.44.91 = A.h.U.37.81.

Chapter forty-five (pratyekalūtāpratīṣedha), absent from the *Hṛdaya*, deals, in verse, with the symptoms caused by each of the poisonous lūtās and their treatment.

The subjects are: the local symptoms and general disorders caused by the kapilā; treatment (45.2–4);<sup>662</sup> the same with regard to the agnimukhī (45.5–7),<sup>663</sup> pītā (45.8–9),<sup>664</sup> padmā (45.10–11),<sup>665</sup> pūti (45.12–13),<sup>666</sup> śvetā (45.14–15),<sup>667</sup> kṛṣṇā (45.16),<sup>668</sup> pāṇḍurā (45.17),<sup>669</sup> raktapādā (45.18),<sup>670</sup> bhṛṅgā (45.19),<sup>671</sup> piṅgā (45.20–21),<sup>672</sup> trimaṇḍalā (45.22–23),<sup>673</sup> pūtigandhā (45.24–25),<sup>674</sup> vīrā (45.26–27),<sup>675</sup> kumudā (45.28),<sup>676</sup> alaviṣā (45.29–30),<sup>677</sup> raktā (45.31),<sup>678</sup> citrā (45.32–33),<sup>679</sup> santānikā (45.34),<sup>680</sup> mecakā (45.35),<sup>681</sup> kasanā (45.36),<sup>682</sup> kākāṇḍī (45.37),<sup>683</sup> eṇapādā (45.38),<sup>684</sup> lājavarṇā (45.39),<sup>685</sup> vaidehī (45.40),<sup>686</sup> jālinī (45.41),<sup>687</sup> mālāguṇā (45.42–43),<sup>688</sup> and sauvarṇikā (45.44),<sup>689</sup> incurable lesions and disorders caused by lūtās should also be managed with the measures described, after warning the patient about the prognosis (45.45);<sup>690</sup> the places of the body preferably attacked by each of the lūtās (45.46–51); they do, however, not restrict themselves to the places mentioned (45.52).

Chapter forty-six (mūṣikālarkapratīṣedha), corresponding to the mūṣikālarkaviṣapratīṣedha chapter of the *Hṛdaya* (U.38), is in verse.

A.s.U.46.2–3 = A.h.U.38.1–2.

A.s.U.46.4 agrees with A.h.U.38.3.

A.s.U.46.5–16 = A.h.U.38.4–15ab.

A.s.U.46.17 is in conformity with A.h.U.38.15cd–16ab.

A.s.U.46.18–23 = A.h.U.38.16cd–23ab.

Additional verses describe emetics (46.24), prescriptions against complaints that may arise after vomiting (46.25), and prescriptions against symptoms of poisoning (46.26–28).

A.s.U.46.29–31 = A.h.U.38.23cd–26.

Additional verses are about the management of complaints that may arise after purgation (46.32–35).

A.s.U.46.36–37 = A.h.U.38.27–29.

Additional verses give another prescription against rat's poison (46.38), a recipe to be employed when fever occurs (46.39–40), a recipe promoting the falling off of granulation tissue (karṇikāpātana) (46.41–42), and oils and ghees promoting wound healing (46.43–44ab).

Thus the general measures to be used against poisoning by rat's bites have been dealt with (46.44cd).

The chapter goes on with the symptoms caused by and the treatment to be employed in bites of a lālana (46.45),<sup>691</sup> capala (46.46a–c),<sup>692</sup> putraka (46.46d–47),<sup>693</sup> hasira (46.48),<sup>694</sup> cikira (46.49),<sup>695</sup> ajina (46.50),<sup>696</sup> kaṣāyadanta (46.51),<sup>697</sup> kulaka (46.52),<sup>698</sup> kokila (46.53),<sup>699</sup> kapila (46.54),<sup>700</sup> kṛṣṇa (46.55),<sup>701</sup> aruṇa, etc. (46.56–59),<sup>702</sup> cucchundara (46.60),<sup>703</sup> and rasāla (46.61).<sup>704</sup>

A.s.U.46.62–64cd = A.h.U.38.33–35.

A few prescriptions against dog's bites are added (46.64ef–66).<sup>705</sup>

A.s.U.46.67 = A.h.U.38.36ab.<sup>706</sup>

A.s.U.46.68 agrees with A.h.U.38.37ab.<sup>707</sup>

A prescription is added (46.69).<sup>708</sup>

A.s.U.46.70 = A.h.U.38.37cd–38ab.

More prescriptions follow (46.71–76).

The next verses describe purificatory measures, the *saṃsarjanakrama* (46.77–78),<sup>709</sup> and a ritual bath (46.79–80) accompanied by a mantra<sup>710</sup> addressed to *Sārameya* and *Gaṇādhipa* (46.81).<sup>711</sup>

A.s.U.46.82–83 = A.h.U.38.39–40.

Chapter forty-seven (*viṣopadravapratīṣedha*), entirely in verse, deals with complications resulting from poisoning and has no corresponding part in the *Hṛdaya*.

The subjects are: the sixteen complications of poisoning which, if neglected, lead to death: fever, cough, vomiting, respiratory problems, hiccup, thirst, serious fainting fits (*atimūrchana*), loose stools (*viḍbheda*), *atikāṭhinya*, *ānāha*, pain in the bladder region, headache, swelling (*śvayathu*), *pūṭidaṃśatva*, bleeding (*raktasrāva*), and *viṣānila* (47.2–3); the treatment of fever (47.4–8), cough (47.9–10c), vomiting (47.10d–14), respiratory problems (47.15–16), hiccup (47.17–19), thirst and fainting (47.20–23), diarrhoea (47.24–26), pain in the bladder region (47.27–28), headache (47.29), swelling (47.30–33), *pūṭidaṃśatva* (47.34–36),<sup>712</sup> bleeding (47.37–39), and *viṣānila*<sup>713</sup> (47.40–46); other disorders should be treated on similar lines, taking into consideration the *doṣa*(s) involved, etc. (47.47); remnants of a poison should be removed by *agada*s effective by seeing or hearing them (*dṛṣyāgada*, *śabdāgada*), because a slight remnant may lead to renewed disease or death (47.48); an *agada* to be smeared on drums or banners, which, by seeing, hearing or touching them, destroy poisons (47.49–56);<sup>714</sup> the virtues of *kṣārāgada* (47.57–58);<sup>715</sup> the preparation of the *sugandhāgada*, the rituals for its use, its effects (47.59–64);<sup>716</sup> the *mahāsugandhāgada* (47.65–75);<sup>717</sup> cooling measures should always be employed in cases of poisoning, except in those caused by *kīṭas* (47.76);<sup>718</sup> dietary and other general measures (47.77–81);<sup>719</sup> things to be avoided by a patient (47.82);<sup>720</sup> the signs indicating cure (47.83).<sup>721</sup>

Chapter forty-eight (*viṣopayogīya*), in verse, has no counterpart in the *Hṛdaya*. It deals with the use of poisonous substances as medicines.<sup>722</sup>

The subjects are: poisons may be employed in cases of poisoning if mantras and other measures fail; this way of treatment may be resorted to when the fifth stage (*vega*) of poisoning has passed, but before the seventh one has arrived; permission has to be asked from the king, but no other person should be notified (48.1); the physician, acquainted with the use of mantras, should carry out first *dharāṇibandha* (48.2);<sup>723</sup> poisons of vegetable origin are usually of the nature of *kapha* and tend to move upwards, while those of animal origin are usually of the nature of *pitta* and tend to move downwards (48.3);<sup>724</sup> the properties of these two categories of poisons are opposed to each other; therefore, those bitten by poisonous animals should be treated with root poisons

in the form of drinks and plasters (48.4);<sup>725</sup> a physician should make those having ingested a vegetable poison be bitten by poisonous animals living on air (pavanāśin), because there is no better antidote than (another) poison (48.5); the dose of root poison to be administered is, dependent on the circumstances, four, six or eight barleycorns (yava) (48.6); a lesion by a kīṭa, however, always requires two yava, that by a scorpion one grain of sesamum (tila); no poisonous substance may be prescribed when the poison has affected the blood (48.7a-c); a lūtā lesion should not be treated by giving the patient a medicated drink, but by applying a plaster, after scarification; a poison administered in cases of poisoning acts like amṛta, but, in the absence of poisoning, it is just a poison; neither should a poison be prescribed when the patient suffers from the effects of a weak poison (48.7cd-8); an agada should be given in cases of doubt; caution is necessary with agadas too, since, improperly prescribed, they give rise to disease (48.9-10); vegetable poisons that may be used are sāktuka, mustaka, śṛṅgī, vā-laka, sarṣapāhvaya and vatsanābha, which are snigdha, ghana and guru; kālākūṭa, however, should never be employed as a counterpoison (48.11); medicines to be administered immediately after the medicinal use of a sharp poison (48.12-13); substances to be mixed with the counterpoison in order to achieve particular effects (48.14-17); a lepa against a burning sensation caused by poison (48.18); someone who has drunk a vegetable poison may be treated by having a furious snake, emitting smoke from its mouth, bite a piece of meat, held at the end of a stick of wood; after mincing this meat one should give it to eat (48.19-20); poisons may also be prescribed in all sorts of diseases when other measures fail; those striving after rasāyana should always use poison (48.21); the proper periods of time for the use of poison for rasāyana purposes and in emergencies (ātyayikavyādhī) (48.22-23a); contra-indications for the use of poison as a medicine (48.23b-24); things to be avoided after administration of a poison (48.25); disorders arising when these rules are not observed, in particular when dry articles of diet (rūkṣānna) are consumed (48.26); prescriptions containing haritālā, which are useful against fevers (48.27-28); prescriptions containing poisonous substances which are useful in long-standing fevers and other disorders (48.29-30), raktapitta (48.31), corrupted sores (duṣṭavraṇa) (48.32), respiratory problems, hiccup and vomiting (48.33), a series of disorders (48.34-36), mūtra (kṛcchra), udāvarta and aśmarī (48.37), aśmarī (48.38), śūla (48.39), vātāṇḍatva<sup>726</sup> (48.40), gulma and plīhan (48.41), plīhodara and krimi(roga) (48.42), kuṣṭha (48.43), plīhan and kuṣṭha (48.44), kuṣṭha in general and particular types of kuṣṭha (48.45-54), mūḍhagarbha (48.55), female infertility (48.56), deficiency of semen in males (48.57), timira (48.58-59), kāca (48.60), śukla<sup>727</sup> and arman (48.61), a number of eye diseases (48.62-66ab), rātryandhatva (48.66c-f), headache (48.67), pūtināsa (48.68), palita and arūṃsikā (48.69), karṇaśūla (48.70), diseases of the mouth (48.71), and stammering (vākṣkhalanatā) (48.72).

The chapter ends with a verse declaring that someone who uses poison medicinally need not be afraid of poisons administered by one's enemies, poisons of poisonous animals, etc.; he need not fear untimely death, grahas, and pāpman (48.73).

Chapter forty-nine (rasāyanavidhī), corresponding to the chapter of the same title of the *Hṛdaya* (U.39), is partly in verse, partly in prose.<sup>728</sup>

A.s.U.49.1–4ab = A.h.U.39.1–4ab.

A.s.U.49.4cd agrees with A.h.U.39.4cd.

Rasāyana procedures will be of no avail in persons who have not been subjected previously to oleation, etc. (49.5). Habits and practices which exite the doṣas and are thus injurious to the preservation of health are enumerated (49.6); the physiological effects of these habits and practices (49.7); their effects on the functions of the human organism (49.8); sensible humans behave therefore otherwise and resort to rasāyana measures, properly applied (49.9).

Rasāyana is of two main types: kuṭīprāveśika and vātātapika; the first of these is the most efficient (49.10).<sup>729</sup>

The requirements for the construction of a kuṭī are described (49.11),<sup>730</sup> followed by those for the one to be subjected to the treatment (49.12).<sup>731</sup>

A.s.U.49.13–17 = A.h.U.39.8cd–14.

The name of the drug called harītakī is explained; the meanings of its synonyms, śivā, vijayā and abhayā are explained as well (49.18–19). Substances to be used in combination with harītakī, in order to have particular effects, are mentioned (49.20–21).

The way to prepare harītakī for use, the rules for its use, and its effects are dealt with next (49.22–23).

A.s.U.49.24–29 = A.h.U.39.15–20.

The effects of this brāhmarasāyana are described (49.30).<sup>732</sup>

A medicated ghee for rasāyana purposes is added (49.31–32).

A number of rasāyanas with āmalaka (49.33–36),<sup>733</sup> vidāṅga (49.37) and triphalā (49.38) as their main ingredients are described.

A.s.U.49.39–49 = A.h.U.39.33–43.

Several rasāyana preparations are added: a recipe with triphalā (49.50–51), harītakī (49.52), āmalaka and iron (49.53–54),<sup>734</sup> āmalaka and other metals (49.55), and gold (49.56–61).

A rasāyana preparation containing gold should be used in combination with śaṅkhaṣuṣṭī by one seeking longevity, in combination with ugragandhā,<sup>735</sup> or the stamens of padma or vidārī, by those seeking increase of intelligence, beauty (lakṣmī), or sexual pleasure (49.62).

A.s.U.49.63–72 = A.h.U.39.44–53.

The next subjects are: the preparation of nāgabālārasāyana, its uses, its effects (49.73);<sup>736</sup> other plants, to be prepared and used in the same way (49.74); preparations with sāravarṇṣas (49.75); ways to obtain a svarasa (49.76) or a similar product (49.77).

A.s.U.49.78–90ab = A.h.U.39.84–95.

A preparation with the burnt pith of the tuvaraka tree, to be employed in eye diseases, is added (49.90c–f);<sup>737</sup> tuvaraka oil should be used every other day during a month in order to achieve its full effect (49.91); more tuvaraka preparations are described (49.92–98).

The section that follows is concerned with the preparation of bhallātaka fruits, the ways this preparation may be used, and its effects (49.99);<sup>738</sup> the gradual increase of the dose (49.100–101); the preparation of bhallātaka juice by the puṭapāka procedure (49.102)<sup>739</sup> and the way it should be used (49.103); preparations with bhallātaka oil

(49.104–105).

A.s.U.49.106–114 = A.h.U.39.75–83.

A section on pippalīrasāyana follows.

A.s.U.49.115–121 = A.h.U.39.96–102.<sup>740</sup>

The chapter continues with preparations containing viḍaṅga (49.122),<sup>741</sup> alambuṣā (49.123–125), and bākucī, also called avalguja (49.126–136).

A.s.U.49.137–139 = A.h.U.39.107–109.

A.s.U.49.140 is in conformity with A.h.U.39.110.

More preparations with bākucī, also called somarājī and śaśīśakala, follow; pra-punāṭa fruits may be used in the same way (49.141–143), as well as kṛmiripu (= viḍa-ṅga), dahana (= citraka) and sphoṭakṛt (= bhallātaka) (49.144).

The bākucī- or somarājīkalpa proceeds with recipes in which bākucī is combined with other medicinal substances in order to achieve specific effects (49.145–154). A verse and a prose passage on the virtues of bākucī end this kalpa (49.155–156).

A short section on preparations with the plant called haimavati<sup>742</sup> (49.157–159) precedes a long one devoted to garlic (laśunakalpa; 49.160–213).

A.s.U.49.160 = A.h.U.39, additional verse between 110 and 111.

A.s.U.49.161–163cd = A.h.U.39.111–113.

An added ardhāśloka says that garlic cures disorders arising in patients suffering from raktapitta (49.163ef). Divergent opinions are referred to concerning the duration of a treatment with garlic preparations (49.164).

A.s.U.49.165–172 = A.h.U.39.114–121.

Two verses on the role of attractive women during the course of treatment are added (49.173–174).

A.s.U.49.175 = A.h.U.39.122.

Garlic preparations should never be ingested in haste, because this would lead to particular disorders (49.176).

A.s.U.49.177 = A.h.U.39.123.

The diet to be prescribed to someone with a flaming digestive fire (due to garlic) (49.178–179).

A.s.U.49.180 = A.h.U.39.124.

Drinks are mentioned which are suitable to patients not accustomed to alcoholic beverages (49.181).

A.s.U.49.182 = A.h.U.39.125.

Added verses deal with particular preparations with specific effects (49.183–194).

A.s.U.49.195 = A.h.U.39.126.

Additional verses are concerned with more prescriptions (49.196–203).

A method enabling brāhmaṇas to use garlic as a medicine is described (49.204).

A.s.U.49.205 = A.h.U.39.127.

A laśunāsava is mentioned, prepared by Nārada for Uddhava's use (49.206).<sup>743</sup>

Things to be avoided by those using garlic preparations are enumerated (49.207). In conjunction with oleation, garlic becomes heavier (49.208). At the end of the treatment, a mild purgative should be prescribed in order to avoid excitation of pitta (49.209).

A.s.U.49.210 = A.h.U.39.128.

A long section (49.211–280) is added to the text of the *Hṛdaya*. The first part of this section is about diseases in which the use of garlic preparations is contra-indicated (49.211) and about the general effects of garlic (49.212–213). The remaining part is devoted to a number of kalpas.

The *palāṇḍukalpa* (49.214–223) deals with: next to garlic, *palāṇḍu* (onion) is the best drug against vāta disorders; the life of the overlord of the Śakas is dependent on it (49.214); the attractiveness of Śaka women is also due to *palāṇḍu* (49.215);<sup>744</sup> the general effects of *palāṇḍu* (49.216); its effects when used as a food item; it cures disorders accompanying (pra)meḥa (49.217); the juice of *palāṇḍu* may be used in the same way as that of garlic (49.218); various ways of using the drug (49.219–222); the beneficial effects of *palāṇḍu* juice (49.223).

The *kukkuṭīkalpa* (49.224–235) is about: the mythical origin of this plant which turns men into divine beings, even in the present age of the world (49.224); the characteristics of *kukkuṭī* (49.225); its general effects on the human organism (49.226); its uses and effects when administered during a *kuṭīprāveśika* *rasāyana* procedure (49.227–229); more rules about the correct employment; the wonderful results (49.230–231); another way of using *kukkuṭī*; longevity will follow after taking the preparation for a full month (49.232); prescriptions with *kukkuṭī* which cure *timira* and vāta disorders (49.233), *antravṛddhi* (49.234), and all kinds of diseases (49.235).

The *kañcukīkalpa* (49.236–256) deals with: the description of the plant called *kañcukī* (49.236); the way it should be used in a *kuṭīprāveśika* *rasāyana* procedure; its effects after one, two, and three weeks (49.237–240); prescriptions with *kañcukī* curative of all kinds of diseases (49.241), and curative of skin diseases and *timira* (49.242); the formula of *saptāmṛtacūrṇa*, recommended in all kinds of diseases (49.243–245); another recipe having *rasāyana* effects (49.246–247); the formula of *martyāmṛtaghṛta* (49.248–250); the formula of *somāmṛtaghṛta* (49.251–256).

The *guggulukalpa* (49.257–280) deals with: the mythical origin of *guggulu*; the effect of this substance on the gods (49.257–258); its general effects on human beings (49.259); the description of the best kind of *guggulu*, called *maḥiṣākṣa* (49.260–261cd); the maximum daily dose is one *pala*; the total quantity used by an individual should not exceed a *tulā* (= one hundred *pala*) (49.261ef); a mantra, taught by Ātreya, that should accompany the use of *guggulu* (49.262–263); *guggulu*, in combination with the drugs of the groups called *mahat-* and *laghupañcamūla*, and particular fluids, cures vāta and kapha diseases (49.264–265); in combination with other drugs, it cures particular diseases (49.266–276); someone who uses, in the proper way, one hundred *pala* of the substance, need not fear an untimely death, disease, and old age (49.277); *guggulu* should be used in combination with drugs counteracting a particular *doṣa* or disease (49.278); it may also be used in the same way as *śilājatu* (49.279); diseases brought about by an excessive use of *guggulu*; in general, *guggulu* should not be prescribed in the presence of one of these diseases (49.280).

The next *kalpa*, also found in the *Hṛdaya*, is devoted to *śilājatu* (49.281–329).

A.s.U.49.281 = A.h.U.39.130.

*Śilājatu*, which pacifies all *doṣas* and destroys all diseases, possesses properties which are characteristic of the type of rocks from which it exudes (49.282).

A.s.U.49.283–284 = A.h.U.39.131–132.

Steeped in the decoction of particular medicinal plants, śilājatu cures diseases brought about by vāta (49.285), pitta (49.286), kapha (49.287), vāta and pitta (49.288), vāta and kapha (49.289), pitta and kapha (49.290). The preparation of śilājatu for cases in which a combination of three doṣas is active is described (49.291).

A.s.U.49.292–300ab = A.h.U.39.133–141ab.

An ardhāśloka is added (49.300cd).

Things to be avoided after taking the prescription are listed (49.301).

A.s.U.49.302ab = A.h.U.39.141cd.

The kinds of water to be used are mentioned (49.302cd).

Added verses (49.303–325) deal with: compound recipes containing śilājatu against particular diseases (49.303–308); the preparation of śivā guṭikā and its actions (49.309–325).<sup>745</sup>

A.s.U.49.326 = A.h.U.39.142.

The wonderful effects of using one hundred (49.327) or even one thousand pala (49.328) of śilājatu are described.

The mythical origin of śilājatu is referred to again at the end of this kalpa (49.329).

Some kalpa sections are added (49.330–364).

The first one, devoted to tāpya (= mākṣhika), deals with: the origin of the two varieties of tāpya: cold-coloured and silver-coloured;<sup>746</sup> their properties; articles of diet, etc., to be avoided during the use of tāpya as a medicine (49.330–332); prescriptions containing mākṣikadhātu (= tāpya) which are effective against particular disorders, confer longevity, etc. (49.333–340).<sup>747</sup>

The second kalpa is devoted to the plant called mahiṣavallārī, vṛddhadāraka, or vellarikā. This plant is described (49.341–342), followed by the way its crushed roots should be prepared for medicinal use; a linctus should be made; milk has to be drunk after taking this medicine, and, after digestion, milk and ghee; the effects are mentioned (49.343–346); the effects that can be expected when vṛddhadāraka is used in combination with aśvagandhā (49.347–348); (śatā)varī and gokṣuraka may replace aśvagandhā (49.349); recipes with the roots of vṛddhadāraka, in combination with other medicinal substances, are described (49.350–357), followed by prescriptions with the juice from vṛddhadāraka fruits (49.358–362).

Two verses describe a preparation containing kuṣṭha as the main drug (49.363–364).

A.s.U.49.365–367 = A.h.U.39.143–145.<sup>748</sup>

Recipes to be used in vātātipika rasāyana follow (49.368–375).

A.s.U.49.376 = A.h.U.39.147.

One recipe is added (49.377).<sup>749</sup>

A.s.U.49.378 = A.h.U.39.149.

Four recipes are added (49.379–383).<sup>750</sup>

A.s.U.49.384 = A.h.U.39.151.

Two recipes are added (49.385–386).<sup>751</sup>

A.s.U.49.387–391 = A.h.U.39.154–158.<sup>752</sup>

A.s.U.49.392 = A.h.U.39.161.<sup>753</sup>

One recipe is added (49.393).

A.s.U.49.394–397 = A.h.U.39.169–172.

One verse is added to the formula of nārasimhaghṛta (49.398).<sup>754</sup>

A.s.U.49.399–401 = A.h.U.39.174–176.

One recipe is added (49.402).

A.s.U.49.403 = A.h.U.39.177.

Some verses on rasāyana in general are added (49.404–411).

A.s.U.49.412 = A.h.U.39.178.

Some verses on general precepts follow (49.413–414).

A.s.U.49.415–417 = A.h.U.39.179–181.

Two verses declaring that the objectives of rasāyana are reached, without the use of the kuṭīprāveśika procedure, by devoted cowherds, living on milk and ghee in cowpens (goṣṭha) filled with lowing and frisking calves, end the chapter (49.418–419).<sup>755</sup>

Chapter fifty (vājīkaraṇavidhi), corresponding to the chapter of the same title of the *Hṛdaya* (U.40), is in verse.

A.s.U.50.2–3 = A.h.U.40.1–3.

A number of added verses are about the importance of sexual life and procreation; aphrodisiacs, which increase semen, will therefore be dealt with (50.4–10).<sup>756</sup>

A.s.U.50.11 = A.h.U.40.6.

Causes of impotency are enumerated (50.12–14). The uncertain correlations between physical qualities on the one hand, potency and fertility on the other, are stressed (50.15–17). Prescriptions will therefore be given which increase the potency of weak ones, and make more potent still those who are strong and able to enjoy sexual activity (50.18).

A.s.U.50.19–20 = A.h.U.40.7–8.<sup>757</sup>

A.s.U.50.21–29 = A.h.U.40.12cd–21ab.

Recipes for aphrodisiacs are added (50.30–40).<sup>758</sup>

A.s.U.50.41–44 = A.h.U.40.26–30ab.

Two recipes are added (50.45–46).

A.s.U.50.47 = A.h.U.40.31cd–32.

More recipes are added (50.48–51); the recipes of śatāvarīghṛta (50.52–55) and jīvakādighṛta (50.56–57) are given.

Numerous prescriptions come next (50.58–113).<sup>759</sup>

A.s.U.50.114–115 = A.h.U.40.35–36.<sup>760</sup>

A.s.U.50.116 = A.h.U.40.38.

A series of verses are about attractive women as the best aphrodisiacs (50.117–123).<sup>761</sup> Other things similarly stimulating are described (50.124–135).<sup>762</sup> Verses on vājīkaraṇa in general conclude this section (50.136–143).

Some verses introduce the next subject, i.e., the tantrayuktis (50.144–149).

The tantrayuktis are listed (50.150–153). The effect of their study is like that of the sun's rays on a closed lotus flower and that of a lamp in a house (50.154). Knowledge of the tantrayuktis is a requirement for the understanding of a scientific treatise (50.155). Their functions are elucidated (50.156–157). The tantrayuktis should be at-



tentively studied (50.158).

The medical science is extolled. Conscientious practitioners are praised, quacks reviled (50.158–175).

An intelligent, compassionate and virtuous physician ought to be honoured as the Aśvins were honoured by Indra (50.176). The healing feats of the Aśvins are referred to. Physicians are comparable to these deities and deserve honour on the same grounds (50.177–184).<sup>763</sup>

The characteristics of properly behaving medical practitioners are described and the ethical code they ought to observe is discussed (50.185–201).<sup>764</sup>

Brahmā transmitted the āyurveda, originally consisting of one hundred thousand verses; Agniveśa and other sages composed, based on this āyurveda, their own treatises, devoted to a particular branch of the medical art (50.202).

Vāgbhaṭa introduces himself: he bears the same name as his grandfather, who was an eminent physician; he is a son of Sīṃhagupta and was born in Sindhu(deśa). He got his training in medicine from his guru, Avalokita, and his father (50.203–204). The treatise (i.e., the *Aṣṭāṅgasamgraha*) he composed covers the essentials of the whole medical science (50.205–206). The usefulness of the work is explained and the hope expressed that it may serve to free the world from disease (50.207–211).



Part 5

Vāgbhaṭa



## Chapter 1

### Vagbhaṭa and the works ascribed to him

Authors called Vāgbhaṭa, their works, and their identities

Vāgbhaṭa is a fairly common name in Sanskrit literature. Many works are attributed to authors of this or a closely related appellation.<sup>1</sup>

The two most important medical treatises ascribed to a Vāgbhaṭa are the *Aṣṭāṅgasamgraha* and *Aṣṭāṅgaḥṛdayasaṃhitā*.<sup>2</sup> The *Rasaratnasamuccaya*, an iatrochemical work, is the third composition to be mentioned among those with which a Vāgbhaṭa is credited.

Other medical works said to have been written by a Vāgbhaṭa are: an auto-commentary on the *Aṣṭāṅgaḥṛdayasaṃhitā*, called *Aṣṭāṅgaḥṛdayavaiśiṣṭyabhāṣya*,<sup>3</sup> two more commentaries, called *Aṣṭāṅgaḥṛdayadīpikā*<sup>4</sup> and *Ḥṛdayaṭippaṇa*;<sup>5</sup> the *Aṣṭāṅganighaṇṭu*;<sup>6</sup> the *Aṣṭāṅgasāra*;<sup>7</sup> the *Aṣṭāṅgāvatāra*;<sup>8</sup> a *Bhāvaprakāśa*;<sup>9</sup> the *Dvādaśārthanirūpaṇa*;<sup>10</sup> a *Kālaḥṇāna*;<sup>11</sup> the *Padārthacandrikā*;<sup>12</sup> the *Śāstraadarpaṇa*;<sup>13</sup> a *Saśloki*;<sup>14</sup> a *Vāgbhaṭa*;<sup>15</sup> the *Vāgbhaṭīya*;<sup>16</sup> the *Vāḍaṇighaṇṭu*;<sup>17</sup> a *Vamanakalpa*.<sup>18</sup>

An author called Bāhaṭa is credited with a *Rasamūlikānighaṇṭu*,<sup>19</sup> a Bāhaṭa with a *Samnipātānidānacikitsā*.<sup>20</sup> A *Bāhaṭagrantha* is, in spite of its title, not by an author called Bāhaṭa.<sup>21</sup>

This chapter will be devoted to the author or authors of the *Aṣṭāṅgasamgraha* and *Aṣṭāṅgaḥṛdayasaṃhitā*. The other works mentioned are of less concern in the present context or are discussed elsewhere.

The two main treatises face us with the complex problem whether they were composed by one and the same person, by two namesakes, or even by unknown authors. The controversial nature of this issue, to be discussed later, makes it desirable to keep to the texts as closely as possible.

The colophons of most editions of both *Samgraha* and *Ḥṛdaya* give Vāgbhaṭa, son of Siṃhagupta, as their author.<sup>22</sup> The unreliability of colophons, which may have been added later, makes them unsuitable to establish the point of authorship.<sup>23</sup> Actually, the name of the author does not appear even a single time in the *Ḥṛdaya*. The *Samgraha*, on the other hand, contains some verses, occurring towards its close (U.50.203–204), which constitute the only source of direct information on the one who may have written this large treatise. These verses state: “The excellent physician Vāgbhaṭa was my paternal grandfather; my name is the same as his; my grandfather’s son was Siṃhagupta, whose son I am; my native country is the land of the Sindhu people;<sup>24</sup> I obtained my knowledge (pratibhā)<sup>25</sup> from my preceptor (guru), Avalokita,<sup>26</sup> and from my father, who was an even more venerable (gurutara) preceptor to me; based on this knowl-

edge, and after studying (vilocana) numerous medical works,<sup>27</sup> I composed (this) well-arranged exposition (vinirṇaya)<sup>28</sup> (of the medical science) according to its division into (eight) branches”.<sup>29</sup>

These meagre facts have led to a host of discussions.

One of the disputed points is the original form of the author's name. Although he calls himself Vāgbhaṭa at the end of the *Samgraha*, variants of his name are found in many a later treatise, in commentaries, etc. The most common of these variants, Vāhaṭa<sup>30</sup> (or Bāhaṭa), is particularly frequent in MSS and treatises from southern India.<sup>31</sup>

Opinions are divided on the issue whether Vāgbhaṭa should be regarded as the original name, or Vāhaṭa, secondarily sanskritized to Vāgbhaṭa. Hilgenberg and Kirfel<sup>32</sup> did not want to exclude the latter option; C. Vogel seems to give it his preference.<sup>33</sup> P.V. Sharma,<sup>34</sup> on the other hand, is strongly in favour of the former choice, being convinced that the author's own statements are trustworthy.

No information is available on the Vāgbhaṭa, who was the father of Siṃhagupta and grandfather of the Vāgbhaṭa of the *Samgraha*,<sup>35</sup> except for the fact that he was a physician. In spite of this, G. Hāldār asserted that this Vāgbhaṭa, whom he designates as Vāgbhaṭa I and assigns to the second century A.D., was the author of a *Smṛtinibandha* and *Vaidyakanighaṇṭu*.<sup>36</sup> This Vāgbhaṭa I is reported to have divided the medical science into ten branches: dravyābhidhāna, rugviniścaya, kāyasaukhyasaṃpādana, śalyavidyā, bhūtanigraha, viśapatīkāra, bālopacāra, rasāyana, śālākya tantra, and vṛṣya. His *Smṛtinibandha* is said to have been famous and to be quoted repeatedly in Aparārka's *Yājñavalkyadharmasāstranibandha*.<sup>37</sup> Grammar was the third branch of learning he mastered, according to G. Hāldār, who claimed that Bhartṛhari refers to this Vāgbhaṭa in his *Mahābhāṣyadīpikā*.<sup>38</sup>

The name of Vāgbhaṭa's father is Siṃhagupta in the text of the *Samgraha* and most of the colophons of the MSS and editions of *Samgraha* and *Hṛdaya*. Niścāla refers, when quoting the *Hṛdaya*, to Vāgbhaṭa as the son of Siṃhagupta,<sup>39</sup> and calls him Vāgbhaṭagupta.<sup>40</sup> The form Saṅhagupta, a variant of Siṃhagupta in some of the MSS and editions of the *Rasaratnasamuccaya*, attributed to a Vāgbhaṭa, is occasionally found in MSS of the *Hṛdaya*.<sup>41</sup> Vāgbhaṭa's father is also called Saṅhagupta by the Hṛdyākāra, a commentator on the *Hṛdaya*.<sup>42</sup> One MS<sup>43</sup> employs three variants of the name, Saṅhagupta, Saṅhugupta and Siṃhagupta. This MS, which may date from the late eighteenth century at its earliest, is remarkable in mentioning a Ravigupta as the grandfather of either Siṃhagupta or a Vāgbhaṭa.<sup>44</sup>

The Tibetan translation of the *Hṛdaya* gives either Seṅ-ge sbaṅ-pa (Siṃhagupta) or Dge-hḍun gsaṅ-ba (Saṅhaguhya) as the name of Vāgbhaṭa's father, according to G. Huth,<sup>45</sup> but C. Vogel<sup>46</sup> records the former only. One MS of the *Hṛdaya*<sup>47</sup> has a colophon mentioning Nṛsiṃhagupta as Vāgbhaṭa's father.

Soḍhala's *Gadanigraha* contains a formula<sup>48</sup> attributed to a Siṃhagupta, whom G. Hāldār<sup>49</sup> regards as identical with Vāgbhaṭa's father, who, obviously, in Hāldār's view, wrote a medical treatise. Some of the ingredients of the recipe prove that it cannot be from a rather early source.<sup>50</sup>

The information at the end of the *Samgraha* shows that its author issued from a family of physicians,<sup>51</sup> settled in Sindh at the time of his birth.

A detail, found in Nīścalakara's *Ratnaprabhā*, induced D.Ch. Bhattacharyya to speculate on the social status of Vāgbhāṭa's family. Nīścala designates, once only in his commentary,<sup>52</sup> Vāgbhāṭa as a royal sage (rājarṣi). D.Ch. Bhattacharyya, joining this isolated fact to another scrap, namely Jejjāṭa's references to his teacher, also a Vāgbhāṭa, as the lord (pati) of Mahājāhnu, concluded, rather rashly, that the author of *Samgraha* and *Hṛdaya* was the chief (rājan) of a small kingdom in Sindh.<sup>53</sup>

It has often been assumed that Vāgbhāṭa was not only born in Sindh, but also spent his life there.<sup>54</sup> This point cannot be settled with any certainty. The explicit statement by the author himself that he was born in Sindh does not imply that he remained in that region. His migration to another area later in life can therefore not be excluded.

This uncertainty proved to be a fertile soil for the cultivation of hypotheses.

P.V. Sharma<sup>55</sup> advanced a number of arguments in favour of the hypothesis that Vāgbhāṭa spent part of his life in Sindh and moved to Ujjayinī or some place near this town later. Vāgbhāṭa's acquaintance with Sindh is deduced from a verse (A.s.Ci.9.37) asserting that a burning sensation and thirst will disappear when recollecting the way of playing with water of the elephants in Sindh. Additional arguments are a reference to añjana as a substance found in or near the river Sindh (A.s.Sū.8.59) and some verses mentioning the Śakas<sup>56</sup> (A.s.U.49.214–215).<sup>57</sup>

These details are insufficient to prove that Vāgbhāṭa remained in Sindh for some time. Dietary habits of the people living in Sindh and of the Śakas are referred to in the *Carakasamhitā*;<sup>58</sup> the river Sindhu is mentioned in the *Susrutasamhitā*.<sup>59</sup>

The migration from Sindh to another region is inferred from the statement that one should leave a country where a king reigns and people abound who do not respect the dharma (A.s.Sū.8.2) and from a number of references to a beautiful and prosperous country.<sup>60</sup> P.V. Sharma suggests that Vāgbhāṭa left his native country, which had suffered from the incursions of foreign peoples, after Yaśodharman had defeated these foreigners in A.D. 533. These peoples, supposed to be the Hūṇas, are described in Yaśodharman's records as ruled by vicious kings transgressing the rules of good conduct.<sup>61</sup>

Again, these references are not convincing at all, being vague and of a type that may be found in any literary work. Moreover, the Hūṇas, different from the Śakas,<sup>62</sup> are absent from the *Samgraha*.

P.V. Sharma's hypothesis that Vāgbhāṭa went to Ujjayinī<sup>63</sup> is partly based on the idea that this city was Yaśodharman's capital, from where he reigned over his kingdom from A.D. 533–583.<sup>64</sup> P.V. Sharma also takes for granted the identity of this king with the Vikramāditya of Ujjayinī who was the patron of the famous poet Kālidāsa and other well-known writers.<sup>65</sup>

No contemporary record, however, gives Yaśodharman the title of Vikramāditya.<sup>66</sup> Kālidāsa's patron, Vikramāditya of Ujjayinī, subdued the Śakas, not the Hūṇas; he is a different king, though often confused with Yaśodharman. Moreover, the city associated with Yaśodharman is Daśapura (or Mandasor), not Ujjayinī.<sup>67</sup>

Other arguments in favour of Vāgbhāṭa's choice to come to Ujjayinī are, in P.V. Sharma's opinion, his reference to Avantī,<sup>68</sup> the name of the region where the city is situated, and his acquaintance with a substance called avantisoma.<sup>69</sup>

Avanti is, however, mentioned in a list of peoples and countries, which weakens the argument, and Avanti's capital, Ujjayinī, is nowhere referred to in the *Samgraha*. The inhabitants of Avanti, the *Āvantikas*, are present in a similar list found in the *Carakasaṃhitā*.<sup>70</sup> The *Suśrutasaṃhitā* is acquainted with *Prācyāvanti* and *Aparāvanti*.<sup>71</sup>

Finally, P.V. Sharma points to the large number of borrowings from Vāgbhaṭa in the works of Sodhala, who was a resident of Avanti or the nearby Gujārāt.

Borrowings from the *Samgraha* are, however, not only found in Sodhala's writings, but also, for example, in Vṛnda's *Siddhayoga* and in the *Cakradatta*.

In sum, none of the evidence carries conviction, which leaves open the question where Vāgbhaṭa chose to live.

A rather late Indian tradition, represented in Merutuṅga's *Prabandhacintāmaṇi*,<sup>72</sup> an untrustworthy work stuffed with anachronisms,<sup>73</sup> presents two Vāgbhaṭas, called *Brhad-* and *Laghubhāḍa*, related to each other as father-in-law and son-in-law. They appear in the story as physicians at the court of king Bhoja of Dhārā. The elder of the two, said to be well read in medical treatises, is credited with a work called *Vāgbhaṭa*, based on his own experience. Wonderful tales are told by Merutuṅga, in particular about the elder physician.

A noteworthy fact, in spite of the unreliability of Merutuṅga, remains his being acquainted with the tradition of an older and a younger Vāgbhaṭa.

The only Western historian of Indian medicine not to dismiss these stories of the *Prabandhacintāmaṇi* was P. Cordier,<sup>74</sup> who, earlier,<sup>75</sup> had tried to defend that Vāgbhaṭa lived during the reign of Jayasiṃha, king of Kaśmīr (A.D. 1196–1218). The latter view found its origin in a passage, thought to be authentic, of the *Rājatarāṅgiṇī*, saying that the Buddhist (paramabauddha) Vāgbhaṭacārya, son of Siṃhagupta, was a contemporary of Jayasiṃha.

Faced with the critical remarks of J. Jolly,<sup>76</sup> who insisted on the absence of the passage in the printed texts of the *Rājatarāṅgiṇī* and confronted him with the expert knowledge of G. Bühler, Cordier realized that his hypothesis had become untenable. The alternative he adopted proved to be equally indefensible.

The collapse of Cordier's tentatives to place the scene of Vāgbhaṭa's activities at the court of king Bhoja of Dhārā or in Kaśmīr during the rule of king Jayasiṃha leaves the problem of Vāgbhaṭa's residence still unsettled.

The only fixed point is the information provided by himself that he was born in Sindh.

C. Vogel<sup>77</sup> regards as evidence confirming that Vāgbhaṭa hails from North India the opinion that seeing a Drāviḍa or an Āndhra in one's dream is a bad omen.<sup>78</sup> He also draws attention to a remark about the soma-like and beneficial medicinal herbs growing in the Himālayas and the fiery and unwholesome character of herbs growing in the Vindhya mountains,<sup>79</sup> but this contrast between the properties of medicinal substances coming from the Himālayas and the Vindhya mountains is not peculiar to *Samgraha* and *Hṛdaya* at all, being found in the *Carakasaṃhitā* too.<sup>80</sup>

Vāgbhaṭa is also regarded as a resident of the North, in particular Sindh, by G. Hāldār.<sup>81</sup> This scholar drafted a highly imaginative theory about a Vāgbhaṭa, who



wrote the *Aṣṭāṅgasamgraha*, the *Aṣṭāṅgahrdayasamhitā*, a work intermediate between the two, and the *Rasaratnasamuccaya*. G. Hāldār wanted to see this author attached to the court of Śaka kings, whose domain included Sindh. The kings he was thinking of are Vāsudeva, the son of Huviṣka, and Kāpālin, the son of Vāsudeva, who ruled in the second and third centuries A.D. G. Hāldār believed that both kings were experts in rasaśāstra and the authors of a *Vāsudevasamhitā* and *Rasarājamahodadhi* respectively. Vāgbhāta, a specialist in rasāyana and rasaśāstra himself, was, in G. Hāldār's view, obviously the right person to hold the office of antaraṅga at the court of these kings, who are referred to as śakādhipati in the *Samgraha*.

An equally or even more inventive theory was developed by R. Śāstrī,<sup>82</sup> who was convinced that Vāgbhāta, author of *Samgraha* and *Hṛdaya*, lived during the decline of the Gupta dynasty, in the period of the incursions of the Hūṇas, and was born in Sindh, during the reign of Kumāragupta I, in A.D. 420. Together with large numbers of the inhabitants of the region, he fled to Kaśmīr, where he composed his two medical treatises. His flight was precipitated by a tragic incident: his both learned and beautiful daughter had been taken by force by one of the Hūṇa chiefs, who had fallen in love with her. R. Śāstrī contrived to establish that the incident took place when Vāgbhāta was thirty-seven years of age. He also managed to determine that he died in A.D. 508, at the end of the reign of Vainyagupta, also called Tathāgatagupta.

R. Śāstrī<sup>83</sup> argued that Vāgbhāta cannot have lived during the reign of Candragupta Vikramāditya, because this king's rule was firmly established in the western parts of India. There would have been no incentive to migrate to Kaśmīr in that period. The political stability continued during Kumāragupta's reign, but new incursions of Śakas occurred during the reigns of his successors, Skandagupta and Samudragupta. Vāgbhāta fled the country due to the troubles in Skandagupta's period of rule.

Traditions current in Kerala see in a Vāgbhāta, who is usually regarded as the author of both *Samgraha* and *Hṛdaya*, the teacher of Jejjāta and Indu.<sup>84</sup> As discussed in the sections devoted to these commentators, these traditions are not worthy of credit.

Another Vāgbhāta sometimes confused with the author of the *Samgraha*, *Hṛdaya*, or both, need not seriously be considered in the present context. This Vāgbhāta appears as the father of Tīsaṭa, the author of the *Cikitsākalikā*, in the untrustworthy colophons of a number of MSS of that treatise.<sup>85</sup>

Some Indian traditions make Vāgbhāta into a mythically radiant figure. He is sometimes regarded as an incarnation of Dhanvantari or identified with one of the fourteen gems obtained when the ocean was churned. Others consider him to be an incarnation of Gautama Buddha.<sup>86</sup> Another legend tells that Vāgbhāta was called by Rāvaṇa to treat his brother Kumbhakarna.<sup>87</sup> Binod Lall Sen regarded him as the physician of Yudhiṣṭhira, the eldest of the Pāṇḍava brothers.<sup>88</sup> A legend about Vāgbhāta relates that Dhanvantari, wanting to inquire into the competence of practising physicians, took the form of a bird, and, wandering to the houses of well-known vaidyas, asked ko 'ruk (who is free from disease)? The only one to give a satisfactory answer was Vāgbhāta, who replied: hitabhuk (someone eating wholesome food), mitabhuk (who eats moderately), aśakabhuk (who does not eat vegetables).<sup>89</sup>

The *Hārītasamhitā* describes Vāgbhāta as the representative of the medical science

in the Kaliyuga.<sup>90</sup>

An entirely different tradition paints him as a voluptuous brāhmaṇa, given to all sorts of revelries, and lost in love with a low-caste woman.<sup>91</sup>

Some well-known Vāgbhaṭas of Sanskrit literature are so clearly distinct that they cannot easily be mistaken for the medical writer, although, nevertheless, this sometimes happens to be the case.

Literary works attributed to authors called Vāgbhaṭa are the *Vāgbhaṭālaṃkāra* and *Kāvyaṇuśāsana*; a third composition often mentioned is the *Neminirvāṇa*.

The *Vāgbhaṭālaṃkāra*, a treatise on poetics, was written by a Vāgbhaṭa, who was a Jaina and the son of Soma; he probably belongs to the first half of the twelfth century.<sup>92</sup> The author of the *Kāvyaṇuśāsana*, also a work on poetics, was a son of Nemikumāra and lived later, in the thirteenth or fifteenth century.<sup>93</sup> The *Neminirvāṇa*, a mahākāvya, may be by the Vāgbhaṭa who wrote the *Vāgbhaṭālaṃkāra*.<sup>94</sup>

Titles of other works ascribed to authors called Vāgbhaṭa are: *Alaṅkāratilaka*,<sup>95</sup> *Chando'nuśāsana* (a treatise on metrics),<sup>96</sup> *Laghu jāṭaka*,<sup>97</sup> *Prākṛtapiṅgala*,<sup>98</sup> *Rṣabha-devacarita* (a mahākāvya),<sup>99</sup> *Śabdārthacandrikā*,<sup>100</sup> *Śṛṅgārtilaka*,<sup>101</sup> and *Vāgbhaṭakośa*.<sup>102</sup>

A *Vāgbhaṭasmr̥tisamgraha*, now lost, is quoted by Aparārka in his commentary on the *Yājñavalkyasmṛiti*.<sup>103</sup>

The *Kavikalpalatā*, a work of Devendra or Deveśvara, son of a Vāgbhaṭa, is sometimes claimed to be by a Vāgbhaṭa.<sup>104</sup>

### The religious persuasion of Vāgbhaṭa

After this digression on the Vāgbhaṭas known in Sanskrit literature, we return to the subject of the biography of the medical author. As we have seen, nothing definite is known, which did not prevent speculations to proliferate.

One piece of information has been left for discussion, namely the religious persuasion and influence of Vāgbhaṭa's first teacher in medicine, Avalokita. The name of this guru is usually thought to indicate that he was a Buddhist, which raises the question of Vāgbhaṭa's own religion, a hotly debated issue.

The problems concerning this point do not form such a hopeless muddle as might appear from the secondary literature. A proper handling of these problems requires first of all that the data derived from the *Samgraha* are carefully kept apart from those coming from the *Hṛdaya*. Since, so far, evidence is dealt with that can throw light on the author of the *Samgraha*, the material occurring in that work will be presented first and compared with that found in the *Hṛdaya*.

The main concern of many scholars attracted to a study of the religious material found in the *Samgraha* has been the identification of traces of Buddhism, or the reasoning away of supposedly Buddhist elements, depending on attitudes and beliefs of these scholars themselves. Extensive discussions and disagreeing interpretations have been the unavoidable result.

Buddhist elements that can hardly be questioned are, first of all, a series of names known from the Buddhist pantheon.

These names are: Aparājita<sup>105</sup> (A.s.Ci.2.144;<sup>106</sup> U.4.18);<sup>107</sup> Āryatārā<sup>108</sup> (Sū.8.59<sup>109</sup> and 28.34;<sup>110</sup> Ci.2.144);<sup>111</sup> Āryāparājita<sup>112</sup> (U.1.20);<sup>113</sup> Āryāparṇasabari<sup>114</sup> (U.1.20);<sup>115</sup> Āryāvalokita<sup>116</sup> (Sū.28.34;<sup>117</sup> Ci.2.144;<sup>118</sup> U.8.57);<sup>119</sup> Āryāvalokiteśvara<sup>120</sup> (Sū.8.59);<sup>121</sup> Bhaiṣajyaguru<sup>122</sup> ((Sū.27, mantra between 12 and 13);<sup>123</sup> Parṇasabari<sup>124</sup> ((Sū.28.23;<sup>125</sup> Ci.2.144);<sup>126</sup> Ratnaketu<sup>127</sup> (U.1.19).<sup>128</sup>

The names found in this list are undoubtedly Buddhist, but one of them, found in both *Samgraha* and *Hṛdaya*, namely Dvādaśabhujā Īśvara Āryāvalokita Nātha, is sometimes given another meaning. Aruṇadatta is completely silent and Indu refrains from twisting the meaning, but the majority of the commentators prefer a Hinduist interpretation. Candranandana gives Devadeveśa as the equivalent of Nātha. Śivādāsasena remarks that the Āryā, joined to Avalokita, is Pārvaṭī, which implies that Avalokita is Śiva. The *Kairālī* commentary says, in the same vein, that the deity referred to is Mahādeva (= Śiva), accompanied by his consort Āryā (= Pārvaṭī). P.V. Sharma<sup>129</sup> argues that Dvādaśabhujā Īśvara should not be connected with Āryāvalokita; he regards the former deity as Kārttikeya, who is described as having six heads and twelve arms in the *Mahābhārata*.<sup>130</sup>

Apart from these names, some titles and epithets are of a Buddhist character. The title Arhant is given to Bhaiṣajyaguru in the mantra addressed to him.<sup>131</sup> The same title is found in another mantra (A.s.Sū.8.60) that belongs to a long description, mainly in prose, of the preparation and application of a wonderful collyrium (aṅjana), called sarvārthasiddhāṅjana (A.s.Sū.58–61). The being addressed in the mantra, also called a dhāriṇī in the text, is Caṣṣuḥpariśodhanarāja, i.e., the (divine) king who completely purifies the eyes, namely the eyes of prajñā, jñāna and vijñāna. This being is obviously a healing Buddha, for he is called Tathāgata and Samyakṣaṃbuddha.

The preparation of the collyrium involves a complicated ritual, which, being composed of some Buddhist and many Hindu elements, is a fine example of the religious syncretism of the *Aṣṭāṅgasamgraha*.

Two problematic names of deities are Jina and Jinasuta, mentioned in a verse (A.s.Ci.21.135) declaring that paying homage to brāhmaṇas, one's gurus and the gods, benevolence (maitrī) to all living beings, and adoration of Jina, Jinasuta, Tārā and Bhāskara, eradicate the disease called kuṣṭha. Indu says in his comments that Jina is the Buddha; he interprets jinasuta in the compound as indicating a plural and regards these Jinasutas as Avalokiteśvara and others.<sup>132</sup>

Tārā, mentioned once (A.s.Ci.21.135),<sup>133</sup> may be either the Buddhist or the Hindu deity of that name.<sup>134</sup> The context – the series Jina, Jinasuta, Tārā, Bhāskara – may be in favour of coupling her with Bhāskara. On the other hand, it must be conceded that Tārā is very frequently met with in Buddhist literature and that she may be the same as Āryatārā.<sup>135</sup>

Aparājita, however, is a deity found only in the Hinduist mantras of a chapter on rituals against grahas.<sup>136</sup>

Two decidedly Buddhist dhāriṇīs are the māyūrī and mahāmāyūrī. Both are employed, together with the āryāratnaketuḍdhāriṇī and a Hinduist śāntikarman, in the treatment of vṛṇa (A.s.U.1.19).<sup>137</sup> The mahāvīdyā called māyūrī, i.e., the mahāmāyūrī, is, along with the invocation of Hindu deities, used against bhūtas (A.s.U.8.58).<sup>138</sup>

The mantra called tathāgatoṣṇīṣa<sup>139</sup> is, together with another one, called sarvavyādhikitsita,<sup>140</sup> recommended as effective against fevers (A.s.Ci.2.145). The first is obviously a Buddhist mantra, the second one may be Buddhist, Hinduist, or even deliberately ambiguous.

The *Hṛdaya* has been studied as diligently, or even more so, than the *Samgraha* in search of features pointing to Buddhist influence.

Names of figures from the Buddhist pantheon found in the *Hṛdaya* are: Āryāvalokita (U.5.50)<sup>141</sup> and Bhaiṣajyaguru (Sū.18, mantra between 17 and 18).<sup>142</sup>

This meagre harvest shows unmistakably the degree of incongruity between *Samgraha* and *Hṛdaya*.

The Dvādaśabhuja Īśvara Āryāvalokita Nātha, known from the *Samgraha*, is met with in the *Hṛdaya* too (U.5.50). The same applies to the epithets of Bhaiṣajyaguru: Arhant, Tathāgata, Samyaksarṇabuddha, Vaiḍūryaprabharāja.

The names Jina and Jinasuta occur in a verse present in some of the MSS and editions of the *Hṛdaya*, but are rather often replaced by Śiva and Śivasuta (Ci.19.98).<sup>143</sup> Indu's *Śaṣilekhā* proves that he read Jina and Jinasuta and interpreted these figures in a Buddhist vein. Candranandana was acquainted with the readings Jina and Jinasuta, but comments, nevertheless, that Śivasuta is Śrīgaṇeśa.<sup>144</sup> Aruṇadatta read Śiva and Śivasuta, which may mean that the original names were finally changed.

Jina is found a second time in the *Hṛdaya* (U.37.44) as the name of the one who devised a particular antidote. Aruṇadatta only remarks that he is the Bhagavant Jina; Śivadāsaena regards him as the Bhagavant Buddha, the *Kairālī* as Buddhāmuni.<sup>145</sup>

This mention of Jina in a verse of the *Hṛdaya* would be the more noteworthy, if it proved to be absent from the *Samgraha*,<sup>146</sup> on account of the much more scanty references to Buddhist figures in the former when compared with the latter.<sup>147</sup>

Tārā's name occurs in the *Hṛdaya* (Ci.19.98) in a verse that also forms part of the *Samgraha* (Ci.21.135).

Gaurī, mentioned in a mantra of the *Hṛdaya* that accompanies the preparation of the antidote called candrodāya (U.35.29cd–30), is regarded as the Yellow Tārā by P. Cordier.<sup>148</sup> This interpretation cannot unreservedly be accepted, on account of the presence in the same mantra of Vaiḍūryamātar, Gāndhārī,<sup>149</sup> Cāṇḍālī, Mātāṅgī, and Harimāyī, names which may be partly Buddhist, partly Hinduist.<sup>150</sup> The rituals connected with the preparation of the candrodāya agada are of a syncretistic nature; a mantra, preceding the one discussed, is addressed to Puruṣaśimha (= Narasiṃha) and Nārāyaṇa; an additional ardhāśloka declares that Indra conquered Vṛtra thanks to the virtues of this drug.

The mahāvīdyā called māyūrī is mentioned in a verse common to *Hṛdaya* and *Samgraha* (A.h.U.5.51cd = A.s.U.8.58).

Returning to the *Samgraha*, this treatise presents, next to the elements already discussed, more material that has been noticed as Buddhist in character, by some scholars at least. Others deny this Buddhist character and interpret the same data as Hinduist or consider it to be ambiguous.

A much discussed subject is the ekavaidya (unique physician) of the opening verse of the *Samgraha*. The author bows down to this deity, who utterly eradicated from the

world all the innate (*sahaja*) diseases, consisting of lust (*rāga*), etc.

This ekavaidya of the *Samgraha* is without any doubt the same as the apūrvavaidya (unprecedented physician) of the corresponding, but differently worded, opening verse of the *Hṛdaya*. The salutation at the beginning of both works is remarkable by being addressed to a deity of a vague appellation, open to disagreeing interpretations.<sup>151</sup> Whether or not this is intentional cannot be decided. The subsequent history of *Hṛdaya* and *Samgraha* shows that the ambiguity of their maṅgalas has furthered their acceptance in both Buddhist and Hindu circles.

Indu refers to the ekavaidya of the *Samgraha* as the author's chosen deity (*abhimatadevatā*) and refuses to identify him.

Much more material is available on the apūrvavaidya of the *Hṛdaya*, which facilitates the examination of the fate of this figure in the commentarial literature.

Aruṇadatta, Candranandana, Hemādri and Indu, though commenting on the meaning of apūrva, are silent on the identity of the author's chosen deity,<sup>152</sup> which, as an uncommon feature, deserves to be taken stock of as a sign that may indicate embarrassment.

One author put considerable effort into persuading his readers that the apūrvavaidya is not the Buddha or some figure from the Buddhist pantheon, but, on the contrary, a Hindu deity. His polemics with an opponent prove that a Buddhist interpretation was current in certain circles. This author, Narahari,<sup>153</sup> defends Vāgbhata against the accusation of heterodoxy and of expressing himself in a confusing style. Narahari's *Vāgbhatamaṇḍana* begins with a lengthy exposition on the opening verse of the *Hṛdaya* and contains numerous arguments to establish that the apūrvavaidya is Īśvara. Narahari also maintains that the Bhaiṣajyaguru, found in a mantra occurring in both *Samgraha* and *Hṛdaya*, cannot but designate Dhanvantari.

Śrīdāsaapaṇḍita asserts rather firmly in his *Hṛdayabodhikā* on the *Hṛdaya* that the apūrvavaidya – and the ekavaidya of the *Samgraha* – should be interpreted as Īśvara. The *Skāndapurāṇa* and *Śaivapurāṇa* are quoted in support. He rejects the opinion that Vāgbhata's unusual way of expressing himself (*aprasiddhapadaprayoga*) gives rise to uncertainty about the deity he had in mind. At the end of this plea, however, he mentions briefly, contradicting his former statements, that the apūrvavaidya may also be Sugata (= Buddha); a quotation from Halāyudha<sup>154</sup> serves to confirm this. Śrīdāsa acknowledges that the mantra addressed to Bhaiṣajyaguru is of Buddhist inspiration.

The author of the commentary on the *Hṛdaya* called *Hṛdyā* is one of the few to own unequivocally that Vāgbhata was a Buddhist.<sup>155</sup>

Before proceeding to a survey of more recent opinions on the first verses of *Samgraha* and *Hṛdaya*, it will be necessary to discuss a rather long salutation, preceding the one addressed to the ekavaidya. This maṅgala, present in some of the editions of the *Samgraha*,<sup>156</sup> praises, with a series of epithets, a deity called Buddha.<sup>157</sup> Some European and Indian scholars<sup>158</sup> accepted this additional verse as genuine, which made it play a part in their thoughts on Vāgbhata's religion. The absence of the eulogy in most of the editions of the *Samgraha*, the silence of Indu, the absence of a similar verse from the *Hṛdaya* and its Tibetan translation, all this together speaks against its trustworthiness.

P. Cordier<sup>159</sup> was one of the early Western scholars to declare that the opening verse of the *Samgraha* is unequivocally Buddhist;<sup>160</sup> he admitted the parallel stanza of the *Hṛdaya* to be somewhat ambiguous, but did not hesitate in regarding its apūrvavaidya as the Buddha.

Other Western scholars considering Vāgbhaṭa to be a Buddhist are: A.B. Keith<sup>161</sup> and G. Liétard.<sup>162</sup>

Indian scholars convinced that Vāgbhaṭa was a Buddhist, and who accept the opening verses of *Samgraha* and *Hṛdaya* as testimonies in proof, are, for example, G. Chāṅgāṇī,<sup>163</sup> G.S. Pendse,<sup>164</sup> and Nandkiśor Śarmā.<sup>165</sup>

Indian scholars who roundabout pronounce that Vāgbhaṭa was a Buddhist are Atri-deva Gupta,<sup>166</sup> A.M. Kuṇṭe,<sup>167</sup> N.S. Mooss,<sup>168</sup> H. Parāḍkar, Paraśurāmlakṣmaṇ Vaidya,<sup>169</sup> P. Rāy,<sup>170</sup> and Rudrapāraśava.<sup>171</sup>

S. Dasgupta thought it to be very probable that Vāgbhaṭa was a Buddhist.<sup>172</sup>

The opening verses of *Samgraha* and *Hṛdaya* are interpreted as referring to a Hindu deity by a number of Indian scholars. Some examples may suffice.

Gaṇeśāstrin Tarṭe<sup>173</sup> asserts that the author was an orthodox Hindu. He explains away the Buddha in the additional maṅgala, present in his edition, and relies on the Hinduist references in the work. Kṛṣṇarāvaśarman<sup>174</sup> maintains that the Buddha and the ekavaidya of the two maṅgalas of the *Samgraha* designate the paramapuruṣa, Brahmā. G. Chāṅgāṇī<sup>175</sup> claimed that the ekavaidya of the *Samgraha* is Dhanvantari. G. Hāldār<sup>176</sup> expressed as his view that the ekavaidya and apūrvavaidya designate Rudra, also called Śaṃkara.<sup>177</sup>

Fortunately, more balanced views are far from rare.

P.V. Sharma<sup>178</sup> thinks that Vāgbhaṭa, the author of the *Samgraha*, grew up in a Hindu family, but was converted to Buddhism under the influence of his teacher Avalokita. In keeping with the tolerant spirit of the age in which he lived, he was not averse at all to incorporating Hindu elements in his writing.<sup>179</sup>

Rāmcandravināyak Paṭvardhan<sup>180</sup> regarded Vāgbhaṭa as basically a Hindu, who, in order to satisfy a wide range of readers, did not altogether neglect Buddhist deities; for the same purpose, he composed maṅgalas suitable to double entendre (dvyyartha).

R. Śāstrī, though strongly defending Vāgbhaṭa's orthodoxy, admitted that the apūrvavaidya may refer as well to Avalokiteśvara as to Dhanvantari.<sup>181</sup>

G.K. Gurjar and R.M. Anand<sup>182</sup> expressed as their opinion that Vāgbhaṭa, though a Buddhist by inclination, did not allow this to overshadow his respect for the traditions of Indian medicine. He harboured no ill feelings towards Brahmanism, respected it, and was generally tolerant in religious matters. The invocation of the apūrvavaidya is interpreted as a testimony of this attitude and thought to refer to both the Buddha as Bhaiṣa jyaguru and to Rudra as a healing deity.<sup>183</sup>

Kuṇṭe<sup>184</sup> argued that Vāgbhaṭa was a Hindu who came under the influence of Buddha's teachings, since he lived in a period of Buddhist expansion. Kuṇṭe regarded the maṅgalas as partly Buddhist, but mainly, in particular the long additional one, as Hinduist; he stressed that three fourths of the long salutation are addressed to Gaṇeśa.<sup>185</sup>

S.K. Ramachandra Rao<sup>186</sup> sees it as likely that Vāgbhaṭa was a Buddhist, though not of a rigid type, because he was also favourably inclined towards the Vedic culture.

K.R. Srikantha Murthy<sup>187</sup> advanced that Vāgbhāṭa was born as a brāhmaṇa, was educated and lived according to the Hindu dharma in his early life, and embraced Buddhism later. He mentions Varāhamihira as another example of the same type of development. The same scholar maintained this position in a later publication,<sup>188</sup> where he brings forward that Vāgbhāṭa shows equal reverence for Hinduism and Buddhism.

Apart from the maṅgalas and the names from the Buddhist pantheon, a series of other elements pointing to Buddhist influence in *Samgraha* and *Hṛdaya* have been discussed in the literature on Vāgbhāṭa's religious attitude. Again, it will be useful to examine the material from the *Samgraha* first and compare it with that found in the *Hṛdaya*.

The *Samgraha* begins with paying homage to the ekavaidya who has driven away from the world all the innate (sahaja) diseases,<sup>189</sup> together with their roots. These diseases are said to consist of rāga (lust), etc. The *Hṛdaya* has a similar verse on the apūrvavaidya, who destroyed all the diseases, which perpetually cling to the body, and give rise to (the triad consisting of) autsukya (desire), moha (ignorance), and arati (ill-will).<sup>190</sup>

The series beginning with rāga is interpreted as Buddhist by some, by others as Hinduist in character.

C. Vogel<sup>191</sup> is convinced that the three moral poisons of Buddhism are meant, which almost certainly shows Buddha to be the apūrvavaidya. The three poisons are rāga, dveṣa and moha.<sup>192</sup>

G. Hāldār<sup>193</sup> is convinced that the five kleśas are meant, which consist of avidyā, asmitā, rāga, dveṣa, and abhiniveśa.<sup>194</sup>

An element thought to be inspired by Buddhism concerns the way to manage diseases which are incurable, but, nevertheless, amenable to palliative treatment (yāpya). Both *Samgraha* (Sū.2.30) and *Hṛdaya* (Sū.1.32) deal with this subject. These conditions should be treated as long as a remnant of āyus (the allotted span of life) remains. The conviction of K. Butzenberger and M. Fedorova<sup>195</sup> that this represents an effort to mitigate the āyurvedic principle of rejection of incurable cases may be out of proportion. Yāpya diseases were not rejected in āyurveda and even those classified as pratyākhyeya (suitable to be refused) were accepted after giving a warning that the hope of complete recovery should be given up.<sup>196</sup> Nevertheless, a remarkable verse of the *Samgraha* lays stress on the physician's duty to attend to an incurable patient until he breathes his last (caramocchvāsa).<sup>197</sup>

The chapter on dinacaryā contains two stanzas (A.s.Sū.3.115–116) which begin with the exhortation to keep to the ten paths of right conduct (karmapatha) and to conquer the inner enemies (abhyantarāri). The verses go on with the advice to give up the ten bad practices (pāpakarman) relating to the activities of body, voice and mind (kāyavāñmanas).<sup>198</sup> These practices consist of: hiṃsā (injuring living beings), steḥa (theft), anyathākāma (desiring a woman with whom intercourse is prohibited), paiśunya (slander), paruṣa (harsh speech), auṛta (lying), saṃbhinnalāpa (idle talk), vyāpāda (malice), abhidhyā (envy), and dṛgviparyaya (heterodoxy).<sup>199</sup> The *Hṛdaya* contains exactly the same series of ten bad practices (A.h.Sū.2.21cd–22 = A.s.Sū.3.115cd–116), but has not the ardhāśloka about the ten karmapathas and the inner enemies. The half-

verse substituted in the *Hṛdaya* (Sū.2.21ab) prescribes that one should affectionately associate with one's friends (kalyāṇamitra) and keep distant from others.

The commentaries of Aruṇa, Hemādri, Indu, Parameśvara and Śrīdasapaṇḍita explain the verses as referring to the Hindu dharma and ignore that they are more probably of Buddhist inspiration.<sup>200</sup> The ten kuśala and ten akuśala karmapathas are well known from various Buddhist texts.<sup>201</sup> However, dharmasāstra texts are also acquainted with a related series of ten dharmapathas.<sup>202</sup>

In conformity with the syncretistic trends of the *Samgraha*, the verses discussed are surrounded by others with no trace of Buddhist influence.

A rule found in the *Samgraha*, but absent from the *Hṛdaya*, says that one should not take a bath in a tank, etc., belonging to someone else, without having removed five piṇḍas (of soil from the bottom)<sup>203</sup> (A.s.Sū.3.70cd). This prescription is seen as a Buddhist element by some scholars,<sup>204</sup> whereas others claim that it is not unknown to Hindus.<sup>205</sup> The presentation of five or four piṇḍas before going to bathe in a tank belonging to someone else is prescribed in the *Yājñavalkyaśmṛti*, while the *Manusmṛti* simply prohibits bathing in such a place (parakīyanipāna).<sup>206</sup> The *Viṣṇusmṛti* forbids bathing in another man's pool, but, in cases of distress, it is permitted after having offered up five (or seven, or four) lumps of clay and (three jars with) water.<sup>207</sup>

The evidence is clearly against the Buddhist connotation of the practice referred to in the *Samgraha*.

The prohibition to take food during the night is regarded as a Buddhist element by some.<sup>208</sup>

An undisputed Buddhist element, found in the *Samgraha* only, is the reference to the four kinds of death distinguished by the Buddhists (saugatāḥ; A.s.Sū.9.89ab).<sup>209</sup> This classification is not elucidated, nor are details given regarding the one hundred and one kinds of death distinguished by the vedavādinaḥ (A.s.Sū.9.86).

Benevolence (maitrī) towards all living beings (sarvasattva), found in a verse common to *Samgraha* and *Hṛdaya* (A.s.Ci.21.135 = A.h.Ci.19.98), is a Buddhist element according to a number of scholars.<sup>210</sup> The term occurs, characteristically, in a mixture of religious concepts, also mentioning vrata, dama,<sup>211</sup> yama, tyāga,<sup>212</sup> and śīla, as well as the veneration of brāhmaṇas, deities (sura) and gurus. The verse ends with the precept to worship (ārādhana) Jina, Jinasuta, Tārā and Bhāskara.

Maitrī, however, is not restricted to *Samgraha* and *Hṛdaya* at all. The term occurs in the *Carakasamhitā* too, where, for example, Ātreya Punarvasu is said to be maitrīpara.<sup>213</sup> Its frequency<sup>214</sup> and repeated occurrence, next to karuṇā,<sup>215</sup> in *Samgraha* and *Hṛdaya* would be more interesting.

The precept of calling to mind (anu-saṃ-smṛ-) the deity called Śāstar before going to sleep, found in the *Samgraha* (Sū.3.119ab), is a Buddhist element according to some,<sup>216</sup> but Śāstar may well be the Hindu deity called thus and not the Buddha or another figure from the Buddhist pantheon.<sup>217</sup>

The statement (A.s.Śā.1.38) that the things heard (śruti) by a pregnant woman (antarvatnī) influence the character type (sattva) of her child is regarded as Buddhist in character by some.<sup>218</sup> There is, however, no ground for such a conclusion; the *Suśrutasamhitā* (Śā.10.3) clearly describes the bad effects of disagreeable sounds,



etc., heard by a pregnant woman, on the child in her womb.

An undoubtful Buddhist element is the praise of a physician who imitates the way of life of a Bodhisattva,<sup>219</sup> who is full of karuṇā, and free from desires (nirāṃṣa) (A.s. U.50.198).<sup>220</sup>

The use of the term dhāriṇī may well be a Buddhist characteristic.<sup>221</sup>

The employment of the term bhikṣu (A.s.Ci.21.33; U.6.53), regarded as a Buddhist element by some,<sup>222</sup> is not convincing, because it is found in texts without Buddhist influence as well.<sup>223</sup>

The argument that the emphasis on mental disorders is a feature due to Buddhism, which, in its early period, inculcated pessimism,<sup>224</sup> does, in my view, not carry conviction.<sup>225</sup>

Apart from the features that the *Hṛdaya* has in common with the *Samgraha*, it presents some additional elements considered to be Buddhist in inspiration.

Some verses in praise of compassion with the needy, helpfulness even to one's enemies, and equanimity through rough and smooth (Sū.2.24cd–25) are seen as based on Buddhist ethics.<sup>226</sup> Noticeable again is the context; the ardhśloka that precedes prescribes that the gods, cows, brāhmaṇas, etc., should receive due honour. This injunction is preceded in its turn by a half-verse recommending to regard even kīṭas and ants as one's equals and one emphasizing the merit of assistance to the destitute and distressed.

The instruction not to put strain on the senses, nor to cherish the senses too much (Sū.2.29cd), is sometimes<sup>227</sup> seen as an exhortation to keep to the Middle Way of Buddhism. It is, however, followed by a half-verse urging one not to engage in activities contrary to the trivarga.

A prescription that may indeed be Buddhist, found in the chapter on daily conduct (Sū.2.30cd), enjoins steering a middle course (madhyamā pratipad) in all matters (sarvadharmeṣu). The Middle Way of Buddhism may be meant here.<sup>228</sup> The passage has been accepted as Buddhist by some Indian scholars.<sup>229</sup> P.V. Sharma,<sup>230</sup> who is not convinced, tried to invalidate this point of view by some references to parallels in the works of Kālidāsa.<sup>231</sup> Atrideva interprets the middle course as one of the signs giving evidence of Vāgbhāṭa's syncretistic attitude.<sup>232</sup> R. Śāstrī, a staunch advocate of Vāgbhāṭa's orthodoxy, sees the middle course mentioned as an illustration of Vāgbhāṭa's tendency to use concepts with a multiple meaning, a tendency agreeing with the religious climate during the reign of Vainyagupta; this inclination also led him, for example, to employ the term apūrvavaidya.<sup>233</sup> As in many other instances, here again the passage is preceded by the Hinduist precept not to undertake any activity conflicting with the dharma.

The application of awareness (Sū.2.46–47) is one of the Buddhist features of the *Hṛdaya* according to C. Vogel.<sup>234</sup>

Some regard the rule that books (ācāryagrantha) should not be recited or read, for fear of violating a vrata, on the eleventh day of a lunar month as inspired by Buddhism.<sup>235</sup>

The Hinduist features of the *Samgraha* have received less attention than those pointing to Buddhist influence and were studied in particular by those advocating that Vāgbhāṭa adhered to the Hindu dharma. The arguments adduced with a view to

establish Vāgbhaṭa's orthodoxy should be examined with caution, since the features referred to need not be based at all on Vāgbhaṭa's religious attitude, but may simply reflect the sources from which he borrowed.<sup>236</sup> Much more illuminating would be what he omitted from his sources or what he changed.

Some statements found in the *Samgraha* are taken to mean that Vāgbhaṭa had an aversion to Buddhist sanctuaries.

The first passage usually referred to in this context (A.s.Sū.3.43 = A.h.Sū.2.33cd–34ab) says that one should not set foot on a number of particular places. The first of these places is the shadow of a caitya, interpreted in this case as a Buddhist sanctuary. The argument hinges on the meaning of caitya. The commentators are not very helpful. Aruṇadatta remarks that a caitya is either a holy tree or a Buddhist place of worship; Candranandana calls it a tree in which a deity resides; Hemādricomments that a tree in which a graha has his residence is meant; Indu refrains from an explanation in saying that a caitya is well known;<sup>237</sup> Parameśvara follows Aruṇa in declaring it to be a holy tree, called mannumaram in the regional language, or a Buddhist sanctuary; Śrīdāsapaṇḍita agrees with Candranandana, although adding that it is a Buddhist place of worship according to Hātaka and a tree in a garden according to the Hṛdyākāra.

A second passage (A.s.Sū.3.44cd) prohibits passing the night at a vṛkṣacaitya or catvara (a cross-road).<sup>238</sup> The vṛkṣacaitya is a holy tree here or a (holy) tree and a caitya are meant.<sup>239</sup>

Both statements, however, are actually recasts in verse of very similar passages in prose found in the *Carakasamhitā* (Sū.8.19), which proves that Vāgbhaṭa's so-called aversion to caityas has been borrowed from Caraka and has nothing to do with a dislike of Buddhism. Cakrapāṇi's explanation of caitya supports this view, for he says that it is a conspicuously big tree in a village.<sup>240</sup>

The references to the Hindu trivarga (the three aims of life) have been regarded as proving that Vāgbhaṭa embraced the Hindu dharma. The absence of an index on the *Samgraha* makes it impossible to survey all the relevant passages.<sup>241</sup> Part of the passages where the term trivarga occurs or the three aims are referred to may be borrowed from Caraka or Suśruta, thus being of no use in discussing Vāgbhaṭa's religion.

Much more interesting are changes that can be discovered when Vāgbhaṭa's text is compared with the *Caraka-* and *Suśrutasaṃhitā*, and additions which cannot be traced to these sources.

An example that may throw light on Vāgbhaṭa's technique of handling his sources is found towards the end of the last chapter of the Uttarasthāna of the *Samgraha* (U.50.185–195), where a series of verses on medical ethics are quoted from Caraka, but some, which are unquestionably Hinduist, are omitted. One of the verses left out says that the āyurveda has been proclaimed by the great sages, devoted to the dharma, for the sake of the dharma, and not to obtain gain (artha) or enjoyments (kāma);<sup>242</sup> the āyurveda has been expounded out of the wish to (provide mankind with) an imperishable (akṣara) state (sthāna) (Ca.Ci.1<sup>4</sup>.57). Another verse missing describes the physician as one who delivers the patient from the snares (pāṣa) of the god of death (Vaivasvata) (Ca.Ci.1<sup>4</sup>.60). Meaningful too are the additions, which, due to their stress on maitrī, karuṇā, a nirāmiṣa manas, etc. (A.s.U.50.196–198), may be of Buddhist inspiration.

A series of verses immediately preceding those on medical ethics are about the feats of the Aśvins, to whom physicians are compared (A.s.U.50.177–184). Hilgenberg and Kirfel<sup>243</sup> and C. Vogel<sup>244</sup> pointed them out as a typically Hinduist feature, but they are very close to the verses on the same subject from the *Carakasamhitā*, which also precede those on ethics (Ca.Ci.1<sup>4</sup>.40cd–50).

Hilgenberg and Kirfel<sup>245</sup> and C. Vogel<sup>246</sup> also mentioned the elaborate mythical story about the origin of fever in the *Aṣṭāṅgasamgraha* (Ci.1.4) as a characteristically Hinduist feature. The numerous details given by Vāgbhāṭa, absent from *Carakasamhitā* and *Suśrutasamhitā*, and obviously from some unidentified source, are remarkable indeed. The *Hṛdaya* omits all the details and is very concise on the subject (Ci.2.1–2).

The same authors<sup>247</sup> drew attention to the religious treatment of rājāyākṣman, of a clearly Hinduist type, described at the end of the chapters on the therapy of that disease in *Samgraha* and *Hṛdaya*. The *Hṛdaya* has a half-verse only (Ci.5.84), which recommends recourse to religious measures (daivavyapāśraya) and to the practices mentioned in the *Atharvaveda*. The *Samgraha* has the same ardhaśloka (Ci.7.118cd), but adds a verse, saying that the same sacrifice (iṣṭi) as that mentioned in the *Veda*, which cured Candra's rājāyākṣman, should be performed by the purohita (Ci.7.119). This extra verse, however, is a variant of a stanza found in the *Carakasamhitā* (Ci.8.1.89), which prescribes the same iṣṭi, without mentioning a purohita.

Many other features, thought to prove Vāgbhāṭa's adherence to the Hindu dharma, have been noticed by Indian scholars.

Kṛṣṇarāvaśarman<sup>248</sup> regarded the statement that the *Samgraha* does not contain a single syllable not in agreement with the tradition (āgama) (Sū.1.20) as such a feature; he interpreted āgama as vaidikamārga, although the term is often employed merely to designate the medical tradition. The same scholar was of the opinion that the chapter on the instruction of students of the *Samgraha* (Sū.2) testifies to the orthodoxy of Vāgbhāṭa,<sup>249</sup> because the requirements making a pupil acceptable are in conformity with the rules formulated in dharmasāstra texts. These requirements are, however, of a very general type, declaring, for example, that the student ought to be a brahmacārin, devoted to his guru, etc. (Sū.2.2–4ab); circumstances unsuitable to study are mentioned too (Sū.2.4cd–5). Kṛṣṇarāvaśarman is oblivious of the facts that the *Samgraha* omits numerous details found in the *Carakasamhitā*, does not describe the typically Hinduist rituals which are peculiar to Caraka, and is unaware of the so-called 'oath' of the *Carakasamhitā*. He also fails to notice that the pertinent chapter of the *Samgraha* ends with a verse praising compassion (dayā) with all living beings as the highest dharma (Sū.2.37cd–38).

The *Aṣṭāṅgahṛdaya* contains some passages not found in the *Samgraha* which are thought to support Vāgbhāṭa's orthodoxy.

The chapter on daily conduct contains the precept not to undertake any action that is in conflict with the three aims of life (trivarga) (Sū.2.30ab). This half-verse is, however, surrounded by instructions more in line with Buddhism. The three aims are separately mentioned elsewhere (Sū.1.2).

Other arguments brought forward in support of the thesis that Vāgbhāṭa was not a Buddhist, but a Hindu, are, for example: the worship of Hindu deities;<sup>250</sup> the frequent

prescription to venerate brāhmaṇas, gurus, cows, etc.;<sup>251</sup> the emphasis on brahmacharya as the best rasāyana for this world and the next (lokadvaya);<sup>252</sup> the importance of the śāśvataloka and paraloka;<sup>253</sup> the auspiciousness of hearing the sounds of Veda recitation;<sup>254</sup> the observance of Hindu rituals;<sup>255</sup> the absence of a ban on the consumption of meat and alcoholic beverages;<sup>256</sup> the presence of propitiation of the planets;<sup>257</sup> the fact that Hemādri calls him an ācārya;<sup>258</sup> the use of the term āyurveda instead of cikitsā, the usual term in Buddhist texts.

R. Śāstrī argues that the laudatory stanza addressed to Vāgbhaṭa (the dhyānaśloka), which describes him as ya jñāpavīta (invested with the sacred thread),<sup>259</sup> proves that he was a Hindu.

The same scholar collected evidence in support of the more specific thesis that Vāgbhaṭa belonged to the community of the Bhāgavatas.<sup>260</sup> He points to the important position of Narasiṃha, exemplified by the medicated ghee called nārasimhaghṛta, which is said to make one's body resemble that of Narasiṃha; someone taking this drug regularly will remain free from disease, because all ailments flee from him, like Asuras in fear of Narasiṃha with his flaming discus (A.h.U.39.172–173).<sup>261</sup> The veneration for Viṣṇu, attested in a number of passages, is adduced in support,<sup>262</sup> as is the enumeration of auspicious objects the physician may observe on his way to the patient.<sup>263</sup> The Bhāgavata features detected in the *Hṛdaya* by R. Śāstrī are of importance to him because he wants to place Vāgbhaṭa in the later Gupta age, a period in which Bhāgavatism flourished.<sup>264</sup>

That Vāgbhaṭa remained faithful to the Hindu dharma is, according to R. Śāstrī again, also clear from the fact that he chose to remain in Kāśmīr in the period which saw the fame of the Buddhist university of Nālandā reach its zenith.<sup>265</sup>

The thesis that Vāgbhaṭa was neither a Buddhist, nor a Hindu, but a Jaina, has been defended by one scholar only, Śrīnivāsācāriyar.<sup>266</sup> His arguments were: Vāgbhaṭa is referred to as a bhiṣaggaṇi at the end of the *Aṣṭāṅganighaṇṭu*; Pūjyapādavāgbhaṭasvāmin is honoured by the Jains of Southern India before taking an āgāda; the Jains of Malabar do not study the *Aṣṭāṅgaḥṛdaya* on the eleventh tithi of a lunar month,<sup>267</sup> out of fear to break a vrata.<sup>268</sup> The same scholar held that Vāgbhaṭa was identical with Amarasimha, the author of the *Amarakośa*, who, though born in a brāhmaṇa family, embraced Jainism after studying with a Jaina teacher. It will be clear that none of these arguments carries any weight.

The diversity of the views set forth and defended by all sorts of arguments, supported by material from the same two treatises, shows that an unequivocal conclusion regarding a particular religious persuasion of the author or authors cannot be reached. The most salient characteristic, which catches the eye again and again when reading both works, remains a clear-cut syncretistic attitude, repeatedly expressed by means of an ambiguous phraseology or a juxtaposition of elements derived from conflicting religious beliefs.

The differences between *Samgraha* and *Hṛdaya*, in this regard and in other respects, have been neglected in many studies so far. These differences will be discussed later again.

Date of the *Aṣṭāṅgasamgraha*

One of the most controversial issues concerning the date of the *Samgraha*, as well as that of the *Hṛdaya*, stems from some remarks of I-ching, a Chinese Buddhist monk, in the report of his travels in India and the Malay archipelago.<sup>269</sup> After an exposition on the eight branches of Indian medicine, the author says: "These eight arts formerly existed in eight books, but lately a man epitomized them and made them into one bundle. All physicians in the five parts of India practise according to this book, and any physician who is well versed in it never fails to live by the official pay".<sup>270</sup>

These sentences enticed a host of scholars to speculate on the identity of the medical treatise I-ching had in mind.

Before discussing this point, it may be useful to deal first with I-ching's reliability in general and his knowledge of medicine in particular.

Max Müller wrote in a letter to Takakusu<sup>271</sup> that we must not expect from I-ching any trustworthy information on the ancient literature of India;<sup>272</sup> he added that, though the works of Chinese pilgrims throw little light on the ancient literature, or even on what is called the Renaissance period up to 400 A.D., they have proved of great help to us in fixing the dates of Sanskrit writers whom they either knew personally or who had died not long before their times.<sup>273</sup>

This estimate of I-ching's dependability is rather encouraging.

Medicine is a subject on which I-ching himself remarks that he studied it successfully, but, as it was not his proper vocation, he finally gave it up.<sup>274</sup>

The extent and accuracy of I-ching's knowledge of Indian medicine can be gauged and checked by the material on the subject in his travel report, and, as has often been overlooked, by a close study of his Chinese translation of the *Suvarṇaprabhāsaśūtra*.<sup>275</sup>

The travel report contains three chapters devoted to medicine. These are: chapters XXVII: on symptoms of bodily illness, XXVIII: rules on giving medicine, and XXIX: hurtful medical treatment must not be practised.

A digression on these chapters is necessary in order to be able to form an opinion on I-ching's sources and his way of handling Indian medical concepts.<sup>276</sup>

The very first statements of chapter XXVII make one suspicious. The author says that the small meal in the morning should be taken in accordance with the condition of the four great elements of which one's body consists. This group of four great elements (mahābhūtas) recurs again and again in the medical chapters of the report and in the *Suvarṇaprabhāsaśūtra* translation. Chapter XXVIII even begins with the assertion that every living creature is subject either to the peaceful working or failure of the four great elements.

The source of this view is, according to I-ching himself, a *Sūtra* on the art of medicine, preached by the Buddha, which mentions earth, water, fire and air as the four elements; the morbid factors associated with these elements are designated by Chinese characters corresponding to Sanskrit *guru*,<sup>277</sup> *śleśman*, *pitta* and *vāta*.<sup>278</sup>

This emphasis on a doctrine making four great elements and their imbalance into basic concepts of medical theory disagrees completely with *āyurveda*,<sup>279</sup> which is characterized by a theory acknowledging the three *doṣas* and their imbalance as basic, while

five, not four, great elements are also given considerable scope. This is the more remarkable when it is taken into account that the triḍoṣavāda was not unknown to I-ching.<sup>280</sup>

The translation of the *Suvarṇaprabhāsa*sūtra by I-ching confirms that he re-interpreted the central concepts of āyurveda under the influence of Buddhist thought and theories characteristic of Chinese medicine.

The two sources at our disposal as testimonies of I-ching's acquaintance with āyurveda thus show unambiguously that he was conversant with part of its theoretical structure and a large number of details concerning treatment, but failed to grasp the essential differences between Indian and Chinese medical thought. The travel report amply attests to his tendency of finding parallels and of his attempts at equating disagreeing concepts of both systems.

The question to be tackled now is whether or not the evidence available suggests that I-ching was informed about Vāgbhaṭa and a work attributed to him.

Several arguments tell against the assumption that he was. Characteristic of *Aṣṭāṅgasamgraha* and *Aṣṭāṅgaḥṛdaya* is a strong emphasis on the doctrine of the three doṣas and the seven elements of the body, while the five mahābhūtas retreat into the background in comparison with their role in *Caraka*- and *Suśrutasaṃhitā*. In contrast with this, I-ching lays stress on the crucial position of four mahābhūtas.

I-ching's travel report enumerates and characterizes the eight branches of āyurveda.<sup>281</sup> The same subject is dealt with in the *Suvarṇaprabhāsa* translation. These two versions are largely in conformity with each other; some differences in detail are interesting without warranting the conclusion that they cannot stem from the same author, as J. Nobel suggested.<sup>282</sup>

Remarkable about the order of presentation of the eight divisions is their conformity with the arrangement found in the *Suśrutasaṃhitā* (Sū.1.8), with only this dissimilarity that āgadantra precedes kaumārabhṛtya instead of being the next item. The order found in *Aṣṭāṅgasamgraha* (Sū.1.8cd) and *Aṣṭāṅgaḥṛdaya* (Sū.1.5cd) diverges considerably. Very strikingly, I-ching's list begins in the travel report with an unusual equivalent of śālya (surgery); he defines this branch as the one dealing with sores, adding farther on that these are of two kinds, inward and outward.<sup>283</sup> The *Suvarṇaprabhāsa* translation deals with śālya differently and uses a Chinese character meaning thorn, which better approximates Sanskrit śālya (all sorts of foreign bodies).<sup>284</sup> The eighth item of the series, vājīkaraṇa, the branch dealing with aphrodisiacs, is incorrectly described in the travel report and said to consist of methods of invigorating the legs and the body.

The evidence about I-ching's knowledge concerning the eight aṅgas of āyurveda<sup>285</sup> is obviously not in favour of his having been acquainted with *Aṣṭāṅgasamgraha* or *Aṣṭāṅgaḥṛdaya*.<sup>286</sup>

Some details in his information about Indian medicine reinforce this impression.

He relates, for example, that people in India do not eat any kind of onions<sup>287</sup> and that these are not permitted as food (to Buddhists), except in case of illness.<sup>288</sup> Onions (palāṇḍu) and garlic (laṣuṇa) are, however, the subjects of elaborate kalpas in the *Samgraha*, while the *Ḥṛdaya*, which has no palāṇḍukalpa, does contain a laṣuṇakalpa. Both

*Samgraha* and *Hṛdaya* declare, however, that brāhmaṇas abstain from garlic (A.s.U.49.162 = A.h.U.39.112), which is not śāsta (A.s.U.49.164). I-ching's data on haritakī are also peculiar in mentioning the use of the bark instead of the fruit.<sup>289</sup>

All this negative evidence is not counterbalanced by a passage, found in the travel report,<sup>290</sup> declaring that, if a disease be not cured by abstaining from food for seven days, one should then seek help from Avalokiteśvara. Paying homage to Āryāvalokita and other figures from the Buddhist pantheon is recommended to patients suffering from fever in the *Samgraha* (Ci.2.144), but this does not make it certain, as sometimes assumed,<sup>291</sup> that I-ching knew the work, because the veneration of Avalokiteśvara is such a widespread phenomenon in Mahāyāna Buddhism.

In short, the communication in the travel report about a generally known medical treatise amounts to no more than a rumour about a book never studied by I-ching if he meant an āyurvedic treatise. More probably, he got his knowledge of Indian medicine from one or more Buddhist texts dealing with the subject.<sup>292</sup>

The vagueness of I-ching's communication was a moving force, actuating many scholars to invent ingenuous reasonings in their efforts to solve the problem and to refute competing theories of colleagues. Rather often, it was overlooked that I-ching was not well informed about Indian medical literature; otherwise, he would never have asserted that only lately<sup>293</sup> an epitome of the eight branches of medicine had been composed, and that, formerly, these were dealt with in separate textbooks. Dṛḍhabala's revision of the *Carakasamhitā* and, probably, the new version of the *Suśrutasaṃhitā* with the Uttaratantra appended to it, were already available as complete textbooks when I-ching was in India. Suspicion is aroused too by his explicit statement that one single treatise was the basis for medical practice in the five parts of India.

As already mentioned, all these considerations did not withhold speculations about the identity of the treatise mentioned.

J. Takakusu<sup>294</sup> suggested that the *Suśrutasaṃhitā* might be meant and pointed to the very similar series of the eight branches in that treatise, when compared with I-ching's enumeration. J. Jolly,<sup>295</sup> not wanting to exclude this option, collected some additional data in support<sup>296</sup> of the hypothesis that a treatise closely related to the *Suśrutasaṃhitā* might be the book in question; however, not feeling sure of this, he brought forward, as an alternative solution, that it could be some version of the *Aṣṭāṅgasamgraha*, still nearer to Suśruta than the one known to us.

The idea that I-ching's information on Indian medicine could, at least partly, ultimately derive from the *Suśrutasaṃhitā*, was brushed aside, too easily in my opinion, in later writings on the subject.

A.F.R. Hoernle<sup>297</sup> strongly objected to the views of J. Jolly. He advanced that the *Suśrutasaṃhitā* could not possibly be implicated, since its great antiquity conflicts with I-ching's reference to a recent book and also because its title cannot be connected with I-ching's epitome. The similarities between the lists of the āṅgas of āyurveda were reasoned away with unacceptable arguments. Moreover, Hoernle was wrong in giving much weight to the age of the *Suśrutasaṃhitā*, because the later version is concerned here; this later version, not the original, more ancient *saṃhitā*, may well be described as comprising all eight branches of medicine.

Unfortunately, Hoernle's criticisms were thought to be convincing by a number of later scholars.<sup>298</sup>

Hoernle tried to defend as a much better solution that I-ching had the *Aṣṭāṅgasamgraha* in mind. His arguments were that its title agrees with an epitome of the eight branches, that it was a recent work in the latter part of the seventh century, the period of I-ching's stay in India, and that it was current during that period. He ruled out the *Hṛdaya* as a treatise with a much less suggestive title, and, also, because of his opinion that the *Hṛdaya* cannot be placed earlier than the eighth century. The considerable disagreements between the names of the eight āṅgas, their contents and their order, as found in I-ching's work on the one hand and both *Samgraha* and *Hṛdaya* on the other, are in this way completely played down and the *Samgraha* is allotted a much more prominent place than it ever had. The thesis that I-ching alludes to the *Samgraha* was repeated in Hoernle's work on Indian osteology.<sup>299</sup>

J. Jolly<sup>300</sup> wrote a short article in reply to Hoernle's earliest claim<sup>301</sup> that I-ching refers to the *Aṣṭāṅgasamgraha*. He brought forward that he was not prepared to question the possibility or even plausibility of the proposed identification and emphasized that he had suggested much the same thing himself. In his view, however, it was still undecided whether the author of the *Samgraha* or Suśruta had the better claim, while the author of the *Hṛdaya* and the numerous writers of compendia only known from quotations should neither be lost sight of. Jolly went on with some remarks on the list of the eight āṅgas of āyurveda in I-ching's work. He argued, quite sensibly, that the list is more in conformity with the *Suśrutasaṃhitā* than with *Samgraha* or *Hṛdaya*. A strong point mentioned in support is the noteworthy detail that I-ching uses the Sanskrit term *agada*, as Suśruta does, instead of giving a Chinese equivalent or paraphrase of *agadatantra*; this means that his source, whatever it may have been, had this term, and not *daṃṣṭrā*, employed in *Samgraha* and *Hṛdaya*.

Jolly's concise, but very clear, exposition shows unmistakably that he had a preference for regarding the *Suśrutasaṃhitā* or a work related to it as the treatise mentioned by I-ching, although he ended his article cautiously by saying that it does not seem to be sufficiently established that the *Aṣṭāṅgasamgraha* is the anonymous textbook referred to by the Chinese monk.

Hoernle's conviction, expressed as an authoritative conclusion, led to a rather general consensus that Vāgbhaṭa is the author of the book mentioned by I-ching,<sup>302</sup> without critically assessing the arguments, which, in my view, have no cogency at all.

Differences of opinion arose concerning the issue whether the *Samgraha* or the *Hṛdaya*, both usually regarded as works of Vāgbhaṭa, should be regarded as the winning card. These discussions on the most likely candidate could originate because of the weakness of the arguments determining Hoernle's choice of the *Samgraha*. First, his late dating of the *Hṛdaya* is wrong; second, the title of that work, which is often seen as an epitome of the *Samgraha*, is not less apt; third, evidence that the *Samgraha* ever enjoyed popularity is completely absent. Jolly's perception of the situation testifies to more perspicacity, but got less attention, possibly due to the, undeserved, reputation of Hoernle.

Arguments invalidating Hoernle's reasoning about the *Samgraha* as the best choice



were adduced by many scholars, but the majority of them did not question the major point and kept to Vāgbhāṭa as the author alluded to.

P.V. Sharma<sup>303</sup> exposed in detail his reasons for regarding the *Hṛdaya* as the recent treatise mentioned by I-ching. He thinks that I-ching may refer to the *Samgraha* once, namely in the passage where he says that the old translators declare that, if a disease be not cured by abstaining from food for seven days, one should then seek help from Avalokiteśvara.<sup>304</sup> This interpretation becomes untenable when one considers the sentences that follow, where I-ching points to the want of knowledge concerning the science of medicine on the part of the old translators. P.V. Sharma adduces as an argument for I-ching's acquaintance with the *Hṛdaya* his assertion that onions (palāṇḍu) are not eaten in India.<sup>305</sup> Another piece of evidence consists, in his view, of the pills prepared from equal quantities of haritakī, dried ginger and sugar, described as being of great benefit.<sup>306</sup> He refers to prescriptions found in the *Hṛdaya*, but these do not mention the equal quantities of all three substances.<sup>307</sup> As a general point, P.V. Sharma brings forward that the *Hṛdaya*, being in verse, soon became popular.

G. Mukhopādhyāya's objections to Hoernle's views,<sup>308</sup> partly sound, partly based on the idea that the *Samgraha* is very old, resulted in the conclusion that I-ching may have had the *Hṛdaya* in mind, but that it is impossible to say whether his remarks may not appropriately refer to other authors whose works are lost.

I-ching's remarks also occasioned some interpretations of a quite different kind than those from the side of Hoernle.

D.Ch. Bhattacharyya,<sup>309</sup> who places one single Vāgbhāṭa, author of *Samgraha* and *Hṛdaya*, in the ninth century, a long time after I-ching's stay in India, suggested that the latter's reference to an epitome of the eight branches of medicine might aim at any of the compendia which existed at the time and would have achieved notoriety and popularity. The availability of these compendia is not doubtful, since they were the sources of Vṛnda, Candraṭa, and other writers. Examples given by D.Ch. Bhattacharyya are Ravigupta's *Siddhasāra*, Acyuta's *Āyurvedasāra*, and the works of Bhadravarman and Bindusāra.

Generally, this hypothesis has not sympathetically been considered, in spite of the fact that Jolly already remarked in passing that the works known from quotations only should not be lost sight of in attempts at identifying the treatise referred to by I-ching. Bhattacharyya's reasonings did not gain much attention on account of the obvious flaws in determining Vāgbhāṭa's date.

C. Vogel<sup>310</sup> described Bhattacharyya's opinion as purely hypothetical, rather far-fetched, and unsatisfactory. He argued that a book once so popular as to have been read all over India is not very likely afterwards to have fallen into complete oblivion. This is, however, not a strong point, first, because it gives too much credit to I-ching's reliability, and, second, because many once popular medical works did get lost. Vogel's second objection, namely that Vāgbhāṭa does not mention any such work among his sources, is even weaker with a view to the extreme paucity of the latter's references to authors and works he borrowed from.

J. Filliozat<sup>311</sup> repeatedly expressed as his view that the treatise mentioned by I-ching cannot possibly be the *Samgraha* or the *Hṛdaya*, nor the *Uttaratantra* of the *Su-*

*śrutasaṃhitā*.<sup>312</sup> He argued that the Uttaratantra, being an appendix to the *Suśrutasaṃhitā* that deals with additional matter, does not answer to the description of a complete medical textbook. The *Samgraha* and *Hṛdaya* do not qualify due to their extent, because I-ching had a short work in mind. Filliozat concluded that one cannot prove that Vāgbhaṭa is the author meant; he considered any work that can be regarded as a summary of the eight branches of medicine to be eligible as one of the candidates.

All these doubts are, according to J. Filliozat, cleared away when the *Yogaśataka* is taken into consideration. That work is the proper candidate, being a short and complete manual for practitioners, divided into parts corresponding to the eight branches, and very popular too in a period not far removed from the times of I-ching.<sup>313</sup>

J. Filliozat was less confident in a later publication, where he conceded that I-ching is mistaken about the recent date of the *Yogaśataka*, if that is the work meant. He mentioned as another difficulty the absence of the name of the author in I-ching's travel report, which requires an explanation in discussions about the *Yogaśataka* as a possible candidate, since this treatise is often attributed, particularly in Buddhist circles, to Nāgārjuna, a name well known to I-ching as a Chinese Buddhist.<sup>314</sup> Filliozat admitted that I-ching's information is often questionable. He concluded, finally, that a basis for reaching a definite answer is absent.<sup>315</sup>

Filliozat's conclusion was endorsed by H.H.M. Schmidt in his notice of the former's views.<sup>316</sup>

The harvest yielded by this long digression is obviously not rich, but important nevertheless. I-ching makes us acquainted with a rumour about an unidentifiable book he never set eyes on. Evidence that Vāgbhaṭa was its author is entirely lacking. The medical historian is faced with a situation resembling that vis-a-vis the stories about Kaniṣka and Caraka.

Information on the works attributed to Vāgbhaṭa can be gleaned not only from Chinese, but also from Arabic sources.

One of the earliest scholars to discuss the date of composition of the *Aṣṭāṅgasamgraha*, P. Cordier, called attention to the resemblance of this title to that of an Indian medical work known to early Arabic writers and referred to as *Kitāb asānkar al-jāmi'*.<sup>317</sup> The translator of the *Asānkar* was Ibn Duhn, who also rendered another Sanskrit medical treatise into Arabic.<sup>318</sup>

A consensus on the interpretation of the full title, *Kitāb asānkar al-jāmi'*, has not been reached so far. G. Flügel translated *al-jāmi'* as 'the collector' (der Sammler), A. Müller as 'consisting of something abbreviated' (bestehend in etwas Abgekürztem), C. Vogel as 'summarizing'.

P. Cordier<sup>319</sup> brought forward that *asānkar* seems to correspond to *Aṣṭāṅgasamgraha*, but the supposed antiquity of that work made him hesitant about the correctness of his interpretation. J. Jolly<sup>320</sup> disagreed with him, arguing that *asānkar* may just as well designate the *Hṛdaya*. The fact that *al-jāmi'* belongs to the title was probably overlooked by J. Jolly, as justly noticed by C. Vogel,<sup>321</sup> who expressed as his opinion that the full Arabic title is in conformity with *Aṣṭāṅgasamgraha* rather than with *Aṣṭāṅgahṛdayasaṃhitā*, unless one regards the final *r* in *Asānkar* a relic of *Hṛdaya*. In my

own view, it cannot so easily be excluded that the term al-jāmi' is employed in order to express that the work translated was a summary (hṛdaya). One should also take into consideration that, preceding the Asāṅkar, the treatises of Caraka and Suśruta are mentioned in the Arabic sources, which might well be a testimony that they were acquainted with the triad now called *Bṛhatrayī*.

The conclusion must therefore be that it cannot be proved that the *Aṣṭāṅgasamgraha* was known to the Arabs in the period of Ibn Duḥn's activity as a translator, i.e., about A.D. 800.

Quotations from the *Aṣṭāṅgasamgraha* constitute much more solid evidence for its terminus ante quem.

A discussion got going by J. Filliozat has to be dealt with first. This scholar<sup>322</sup> ventured to assert that Vāgbhata reproduces verses found in the *Yogaśataka*.

The facts in support of J. Filliozat's thesis are slender. The *Yogaśataka*, which does not refer one single verse to a source, contains three verses found in both *Samgraha* and *Hṛdaya*: *Yogaśataka* 72 = A.s.U.8.21 = A.h.U.5.18; 73 = A.s.U.8.22–23 = A.h.U.5.19; 74 = A.s.U.8.24–27 = A.h.U.5.20. Three more verses occur in the *Hṛdaya* only: 22 = A.h.Ci.14.38; 80 = A.h.U.39.159; 90 = A.h.U.40.49. All these six stanzas have no close parallels in *Caraka*- or *Suśrutasaṃhitā*, which means that the *Yogaśataka* borrowed them or that they derive from the *Yogaśataka*, unless an unknown common source is invoked.

Evidence on the sources of the *Yogaśataka* would be illuminating,<sup>323</sup> but most of the numerous commentaries, which might give some insight, have not yet been edited. The commentary of Pūrṇasena, which has been edited, is of no help in this regard.

A curious fact, noticed by H.H.M. Schmidt,<sup>324</sup> may, at first sight, be interpreted as giving support to the hypothesis that the *Yogaśataka* was indeed one of the sources of the *Aṣṭāṅgasamgraha* and *Hṛdaya*. One verse of the *Yogaśataka* (72), forming part of *Samgraha* and *Hṛdaya*, is said to be from the *Yogaśataka* in the *Yogarātnākara* (425). This stanza describes a formula, called māheśvaradhūpa in the *Yogarātnākara*. The seemingly obvious conclusion that the formula derives ultimately from the *Yogaśataka* is, nevertheless, without any firm basis, for the *Yogarātnākara* quotes, for example, the recipe of mahāpaiśācagṛṭa (426) as coming from the *Yogatarāṅgiṇī*, while it is already found in the *Carakaśaṃhitā* (Ci.9.45–48).

A similar state of affairs is met with elsewhere. Nīśālakara remarks that a particular prescription (*Cakradatta*, gulma 40) comes from the *Yogaśata*, where it is found indeed (22), but it forms part of the *Aṣṭāṅgahṛdaya* as well. Śivādāsasena, also a commentator on the *Cakradatta*, and, moreover, one who bases his work on that of Nīśāla, attributes the recipe to Vāgbhata, which proves that he regarded the *Hṛdaya* as the more original source.

Though conclusive evidence on the sources of the *Yogaśataka* has thus not been obtained, it yet appears to be more probable that its author borrowed from the *Hṛdaya* than that the latter took part of its material from the *Yogaśataka*.

The uncertain date of the *Yogaśataka*, however, makes that work unsuitable as a cue for establishing the date of *Samgraha* or *Hṛdaya*.

One of the earliest works quoting the *Aṣṭāṅgasamgraha* may be the *Mādhavanidāna*, which incorporated a number of verses found in the *Samgraha* and absent from the *Hṛdaya*. Since *Mādhava* does not refer to his sources by name, we cannot exclude with certainty the possibility that he borrowed from some other, unknown, treatise, also made use of by the author of the *Samgraha*.

The chapter on fevers of the *Mādhavanidāna* contains four stanzas (2.40–43) which, in a slightly different order and with a number of variants, form part of the *Samgraha* (Ni.2.96cd–97ab, 95cd–96ab, 100cd–102). The not inconsiderable differences in wording throw some doubt on the *Samgraha* being their source. This doubt is deepened by the fact that the cluster is preceded by an *ardhaśloka* (2.39cd) and followed by a verse (2.44) from an unidentified source. In addition, the commentator Vijayarakṣita says in the *Madhukośa* that the first verse of the short series (2.40) is taken from a treatise that goes against the (traditional) grain (*pratilomatanta*); it is improbable that he had the *Samgraha* in mind, which was well known to him and quoted in other contexts as *Vṛddhavāgbhaṭa*.

The chapter on sluggishness of the digestive fire and related disorders contains a group of verses (6.10–13ab) which, though their order differs slightly, are completely identical with stanzas found in the *Samgraha* (Sū.11.31, 33, 32, 36ab). The commentators Vijayarakṣita and Vācaspati are silent on their origin, which urges caution, but it cannot be ruled out that they are taken from the *Samgraha*.

A third small group of one verse and a half, found in the chapter on *kuṣṭha* (49.40–41ab), and said to be from the *Aṣṭāṅgasamgraha* in Jāḍavjī Tricumjī's edition, is not peculiar to that text, forming part of the *Hṛdaya* as well.

The description of the children's disease called *pārigarbika* (68.10–11) is identical with that found in the *Samgraha* (U.2.97–98), while it is absent from the *Hṛdaya*. *Mādhava* may have taken the verses from the *Samgraha*, though the commentators are silent and a common source cannot be excluded.

This evidence shows that the *Mādhavanidāna* may quote the *Samgraha*. The fact that *Mādhava* used the *Hṛdaya* rather extensively in the composition of his work suggests that he was acquainted with the *Samgraha* as well. The alternative, i.e., the supposition that the *Samgraha* was not well known or even unknown in *Mādhava*'s time, is improbable.

Treatises which are later than the *Mādhavanidāna* rather often borrow, usually anonymously, from the *Aṣṭāṅgasamgraha*. Examples are the *Siddhayoga*<sup>325</sup> and the *Cakradatta*.<sup>326</sup>

A group of commentators quote from or refer to *Samgraha* and *Hṛdaya*, while the members of another group distinguish a *Vṛddhavāgbhaṭa* and *Vāgbhaṭa*. Aruṇadatta,<sup>327</sup> Candranandana,<sup>328</sup> Hemādri<sup>329</sup> and Indu<sup>330</sup> belong to the first group; Narahari, Niścala and Śivādāsaśena belong to the second group.<sup>331</sup> This material from the commentarial literature does not give new clues to the date of the *Samgraha*.

The external evidence, taken together, shows that the *Samgraha* is probably earlier than the *Mādhavanidāna* and certainly preceded the *Siddhayoga*.

One testimony remains to be discussed. Śivādāsaśena states in his commentary on the *Cakradatta*<sup>332</sup> that a particular verse of the *Hṛdaya* (U.22.41cd) is inspired by

Jejjāṭa. The presence of a corresponding passage in prose in the *Samgraha* (U.26.31) might be regarded as an indication that Jejjāṭa antedates this work too, if Śivadāsa is to be trusted.

The anteriority of Jejjāṭa, who lived in the seventh or eighth century, would imply that the *Samgraha* cannot be earlier than the seventh century and may have to be assigned to its latter half or the beginning of the eighth century.

Quotations from Vāgbhāṭa in non-medical works do not provide data helpful in narrowing down the limits of his period of activity.<sup>333</sup>

The terminus post quem of the *Aṣṭāṅgasamgraha* is elucidated by its sources. The names of the authorities mentioned in it have therefore to be examined first.

The *Carakasamhitā* is one of the works to which the *Samgraha* is heavily indebted. The chapters of both begin in a similar way, but the second half of this opening differs. The *Carakasamhitā* has: thus spoke the venerable Ātreya, whereas the *Samgraha* says: thus spoke Ātreya and the other great sages (maharṣi). The names of these great sages, to whom Indra revealed the āyurveda, are enumerated in the story about the descent of āyurveda to the world of human beings (Sū.1.4–13ab). The list begins with Punarvasu (= Ātreya) and Dhanvantari, who are known as the representatives of kāyacikitsā and śalya, and proceeds with the names of specialists in other branches of āyurveda.

Ātreya is not only mentioned at the beginning of each chapter and in the list of sages referred to. His name appears among a series of deities and sages to be honoured during a treatment with clysters (Sū.28.34). He refutes the opinion held by women that, in the seventh month of pregnancy, due to the coming into being of the hair of the head in the foetus, vidāha arises in a pregnant woman. Ātreya declares that, due to the pressure exerted by the foetus, the doṣas move about and reach the cardiac region; this is the cause of the vidāha that occurs; from this vidāha itching arises, which causes in its turn kikkisa (striae) (Śā.3.3).<sup>334</sup> Khaṇḍakāpya's view on the diet in the eighth month of pregnancy is rebutted by Ātreya (Śā.3.5).<sup>335</sup> Interesting is a group of verses in the chapter on rasāyana (U.49.262–263), which contain a mantra, to be recited when guggulu is used; this mantra, said to derive from the muni Ātreya, is addressed to Puṇḍarikākṣa,<sup>336</sup> Purandara (= Indra), and other deities.<sup>337</sup>

Atri is mentioned once (U.50.209) and may be the same as Ātreya in this case.

Punarvasu, i.e., Punarvasu Ātreya, is presented as the authority to whom Agniveśa addresses himself for instruction (Ka.5.57). He is referred to as munivṛṣabha in the verses that follow.

Finally, Punarvasu is said to be the only authority to distinguish eight instead of seven vegas of poison (U.40.28).

Caraka is mentioned a number of times. Three āsthāpāna enemas are sufficient in order to subdue the doṣas in cases of saṃnipāta according to Caraka; a larger number is not necessary at all, because there does not exist a fourth doṣa (Sū.28.54). Interestingly, the *Hṛdaya* has only the first two pādas in common (Sū.19.59cd); it proceeds with a verse (Sū.19.60), which, though having the same content as the next four pādas of the *Samgraha*, does not refer to Caraka, but, instead, to other physicians, who are, moreover, represented as having a divergent opinion, disagreeing with that of the author.<sup>338</sup>

As far as I know, the *Carakasamhitā* never refers to the theory that some authorities acknowledge a fourth doṣa, which raises the problem of the *Samgraha*'s source. The second part of the statement may be directed against Suśruta, who says (Sū.35.6) that a basti is beneficial in disorders caused by vāta, pitta, kapha, blood, in cases of saṃsarga, and in saṃnipāta.

The second quotation from Caraka (Śā.10.31) deals with the essential character of a riṣṭa as a certain sign of approaching death; those without an accurate knowledge of the matter make mistakes in not recognizing a riṣṭa or seeing one where none is present. The same verse forms part of the *Hṛdaya* (Śā.5.2), where it is not ascribed to Caraka. The stanza is absent from the *Carakasamhitā*, as already suggested by the use of riṣṭa instead of ariṣṭa, but has a parallel there, though quite differently worded (I.2.6). Again, the source of the verse remains unknown.

The paribhāṣā section at the end of the *Kalpasthāna* refers to Caraka several times (25, 27, 61, 70).

Next to the references to Ātreya and Caraka, those to Agniveśa have to be dealt with.

Agniveśa is one of those who composed a medical treatise (Sū.1.11). He is mentioned as such again and belongs to a series of deities and sages to be honoured during a treatment with clysters (Sū.28.34).

Agniveśa requests Punarvasu to explain to him which fruits may profitably be used in clysters (Ka.5.57). The stanzas giving Punarvasu's opinion on the subject agree literally with some found in the *Siddhisthāna* of the *Carakasamhitā*,<sup>339</sup> where not Agniveśa, but a group of other sages approach the son of Atri (= Ātreya Punarvasu) with an identical question. Some more verses from the same chapters are clearly related to each other as well.<sup>340</sup>

Agniveśa's theory on the pathophysiological processes operative in a saṃtata fever is described (Ni.2.62–64a), preceding the rival theory of Hārīta. These verses are noteworthy in not presenting Ātreya as the authority, but his pupil, and contrasting him with Hārīta.

The material collected so far demonstrates that the *Samgraha* is later than Dr̥ḍhabala's version of the *Carakasamhitā*, in spite of the absence of his name. Additional support is provided by the numerous verses from Dr̥ḍhabala's contributions which are identical with or closely related to verses occurring in the *Samgraha*. The *Kalpasthāna* of the *Samgraha* illustrates this, for it contains, when compared with the *Hṛdaya*, a large number of additional verses, literally borrowed from the *Kalpasthāna* of the *Carakasamhitā*, which derives from Dr̥ḍhabala.

The evidence notwithstanding, some scholars disagree with this point of view.

A.F.R. Hoernle was convinced that Dr̥ḍhabala is posterior to the period of composition of the *Samgraha*. He claimed<sup>341</sup> that Dr̥ḍhabala obtained his total of ninety-six eye diseases by adopting the number of ninety-four of the *Samgraha* and adding the two new diseases of Mādhava. This quite erroneous interpretation has been discussed in the section on Dr̥ḍhabala. P.V. Sharma<sup>342</sup> showed that Dr̥ḍhabala simply accepted Karāla's number of eye diseases.<sup>343</sup> The other reasons that induced Hoernle to assign Dr̥ḍhabala to a period even later than Mādhava are equally wrong.

S. Dasgupta<sup>344</sup> accepted Hoernle's statement that Dr̥ḍhabala was acquainted with the *Samgraha* and, for that reason, he reproduced part of Hoernle's references.

P.V. Sharma<sup>345</sup> expressed as his opinion that the *Samgraha* dates from shortly after Dr̥ḍhabala or from about the period of his activity, which explains that Kapilabala, Dr̥ḍhabala's father, is mentioned in it, not Dr̥ḍhabala himself. He asserts that the *Samgraha* does not quote from Dr̥ḍhabala's parts of the *Carakasamhitā*, because it dates from a period in which this version of the *saṃhitā* was not yet well known. An additional argument adduced by P.V. Sharma is the concise treatment of pañcakarman in the *Samgraha*, while this subject is dealt with much more elaborately by Dr̥ḍhabala.

Unfortunately, P.V. Sharma does not set forth where all the material of the *Samgraha* dealing with subjects treated by Dr̥ḍhabala may come from. He also fails to explain why Dr̥ḍhabala's name does not appear in the *Hṛdaya*. P.V. Sharma's identification of the Kapilabala, quoted in the *Samgraha* (Sū.20.17), as Dr̥ḍhabala's father, is no more than a guess and therefore unsuited for chronological purposes.

One, rarely or never noticed, aspect of the relationship between *Samgraha* and *Carakasamhitā* has still to be mentioned. Material found in prose in one of the chapters of the *Carakasamhitā* appears in a versified form in the *Samgraha*.<sup>346</sup>

The relationship between *Samgraha* and *Suśrutasamhitā* is more difficult to determine.<sup>347</sup> In general, the *Samgraha* deals much more freely with material also occurring in the *Suśrutasamhitā* than with that found in the *Carakasamhitā*. The former is less often quoted literally, while very numerous verses of *Samgraha* and *Carakasamhitā* are identical. In spite of this striking difference, verses common to *Suśrutasamhitā* and *Samgraha* and verses closely related are not rare at all.<sup>348</sup>

P.V. Sharma<sup>349</sup> is of the opinion that the revised and completed version of the *Suśrutasamhitā* as now known to us was not yet available to the author of the *Samgraha*, but he fails to give this claim a solid basis.

A.F.R. Hoernle<sup>350</sup> expressed as his opinion that this relationship is less certain than that with the *Carakasamhitā* because the *Suśrutasamhitā* is never actually quoted, but that, still, numerous indications point to a decided posteriority of the *Samgraha* to its revised and completed version, suggested, for example, by the treatment of the eye diseases, which follows the outline as found in Suśruta's Uttaratantra. He also points to the division of the *Samgraha* into the same sections as the *Suśrutasamhitā*. Hoernle's additional remark that the Indian tradition makes in the same direction cannot be accepted as a valid argument. His assertion that the *Suśrutasamhitā* is never actually quoted is far from the truth, but the presence of the same sections in Suśruta's work on the one hand and *Samgraha* and *Hṛdaya* on the other, is a valid point, worthy of consideration.

An examination of the actual state of affairs may elucidate this issue.

Suśruta is mentioned several times in the *Samgraha*. The opening chapter (Sū.1.11) refers to him as one of the authors of a tantra, which is a straightforward indication that some version of the *Suśrutasamhitā* was known to the author of the *Samgraha*.<sup>351</sup>

Suśruta is one of the sages and deities to be paid homage to in the preparation of the sarvārthasiddhāñjana (Sū.8.59).<sup>352</sup>

His opinion on the taste of pitta and kapha, when in a vidagdha state, is quoted

(Sū.20.18),<sup>353</sup> after Kapilabala's view on the tastes of doṣas which have increased. Suśruta's opinion as referred to is in conformity with the *Suśrutasaṃhitā* (Sū.21.11 and 15).

The doṣopakramaṇīya chapter (Sū.21) discusses the views of a series of authorities on the order in which increased doṣas have to be controlled. The section referring to these very diverse opinions, absent from the *Hṛdaya*, mentions two authorities by name, Parāśara and Suśruta. The latter teaches that there is no rule valid for all diseases. He prescribes that in fever and diarrhoea pitta should be subdued first, kapha next, and vāta last (Sū.21.22),<sup>354</sup> for reasons given in the next three stanzas.

Suśruta's point of view regarding ariṣṭas is quoted in the chapter of the *Śārīrasthāna* where Caraka and Kṛṣṇātreya are cited on the same subject. Suśruta asserts in a verse, borrowed from the *Suśrutasaṃhitā*<sup>355</sup> indeed (A.s. Śā.10.32cd–33ab = Su.Sū.28.5), that the effect of an ariṣṭa can be counteracted by brāhmaṇas without blemish by means of rasāyana, tapas, etc.

Finally, Suśruta is referred to in the paribhāṣa section at the end of the *Kalpasthāna*.<sup>356</sup>

Two figures to be dealt with in the same context as Suśruta are Dhanvantari and Kāśīrāja.

Dhanvantari appears in the list of sages to whom Indra revealed the āyurveda (Sū.1.6).<sup>357</sup> He is, together with Suśruta, among the deities and sages to be honoured in the ritual accompanying the preparation of the sarvārthasiddhāṇjana (Sū.8.59).<sup>358</sup> Dhanvantari is also the authority who recommends the use of balātaila (Śā.4.51).<sup>359</sup> On the subject of the diet of a pregnant woman, he declares what it should consist of from the eighth month onwards (Śā.3.8).<sup>360</sup>

The chapter on the treatment of poisoning (U.40) relates that Dhanvantari largely agrees with Ālambāyana on the substrates of the seven vegas of poison in those bitten by a snake. The only difference between the two is the substrate of the fourth vega: the snāyus according to Ālambāyana, the koṣṭha according to Dhanvantari (U.40.36).<sup>361</sup> The next two stanzas, on the role of the kalās, appear to come from the same source and represent views of the Dhānvantariyas according to Indu.<sup>362</sup>

The name of Kāśīrāja appears once only among deities and sages to be honoured during a treatment with clysters (Sū.28.34).<sup>363</sup>

This material makes clear that the *Samgraha* borrowed from the *Suśrutasaṃhitā*, but does not yet provide an answer to the problem whether or not the Uttaratāntra was among its sources.

First, some examples among the borrowings from Suśruta may be useful in illustrating the way this source is handled in the *Samgraha*.<sup>364</sup>

The divisions of time (Sū.4.3–4) are partly the same as those found in the *Suśrutasaṃhitā* (Sū.6.4–5). The latter's muhūrta is replaced by the nāḍikā;<sup>365</sup> two of these constitute a muhūrta, which makes its duration twice as long as in Suśruta's scheme. Four muhūrta, minus one-fourth of it, make a yāma, a measure of time absent from Suśruta's division. Four yāma make one day and night, which corresponds to the thirty muhūrta of Suśruta.

The passage on the divisions of time of the *Samgraha* is more probably based on Su-



śruta than on a common source, because of the similarities in wording and the additions found in the *Samgraha*.

Remarkable is the relationship between several chapters of the Uttaraśthāna of the *Samgraha* and the corresponding ones of the Nidānaśthāna of the *Suśrutasaṃhitā*. It should be borne in mind that the main features of this relationship are common to *Samgraha* and *Hṛdaya*.

An example is the connection between the mukharoga chapters (Su.Ni.16 and A.s. U.25 = A.h.U.21). Though the relatedness is clear, there are many differences, both in wording and contents, which exclude that the *Samgraha* version is simply based on the *Suśrutasaṃhitā*. The conclusion that the author of the *Samgraha* must have disposed of additional sources, next to the *Suśrutasaṃhitā* and works by which that treatise was influenced, is unavoidable.

A related issue concerns the rarely broached question which text of the *Suśrutasaṃhitā* was preferred by the author of the *Samgraha*. Details found in some chapters of the Śārīraśthāna<sup>366</sup> may indicate that he regarded Gayadāsa's text as authoritative.

A relationship between several chapters of the Uttaraśthāna of the *Samgraha* and the Uttaraśthāna of the *Suśrutasaṃhitā* is obvious, without permitting a definitive judgment on the anteriority of the one or the other of these sections. A major difference is that the chapters of the *Samgraha* are partly in prose, while those of the *Suśrutasaṃhitā* are in verse. Even more important is the fact that the text of the *Samgraha* is more elaborate, gives more details, and presents new material. This state of affairs makes it necessary to examine whether the corresponding chapters of Suśruta's Uttaraśthāna are one of the sources of the *Samgraha*, more concise versifications of the *Samgraha* versions, or based on unknown common sources.

Some verses of the *Samgraha* are closely related to stanzas of the Uttaraśthāna of the *Suśrutasaṃhitā*, without being identical.<sup>367</sup> Several mantras are common to the Uttaraśthāna of the *Samgraha* and Suśruta's Uttaraśthāna.<sup>368</sup>

The Uttaraśthāna of the *Samgraha* and the Uttaraśthāna of the *Suśrutasaṃhitā* differ considerably on numerous issues. A considerable number of these differences are common to *Samgraha* and *Hṛdaya*,<sup>369</sup> but the former also presents many peculiar features.<sup>370</sup>

The provisional conclusion that can be deduced from this evidence remains that the links between the Uttaraśthāna of the *Samgraha* and the Uttaraśthāna of the *Suśrutasaṃhitā* do not allow us to prove which of the two is earlier.

One testimony may, however, be seen as indicating that the *Samgraha* is later than the Uttaraśthāna of the *Suśrutasaṃhitā*. This testimony consists of Śivadāśasena's remark that Vagbhata follows Jejjata in a particular verse of the *Hṛdaya*.<sup>371</sup> Since the *Samgraha* contains a prose passage corresponding to the verse found in the *Hṛdaya*,<sup>372</sup> the remark applies to both treatises. Jejjata is known to have written a commentary on the whole of the *Suśrutasaṃhitā*, which leads to the conclusion that the *Samgraha* is later than the Uttaraśthāna, with the obvious proviso that Śivadāśasena's testimony can be accepted as trustworthy.

The fact that the *Samgraha* ends with an Uttaraśthāna, resembling the Uttaraśthāna of the *Suśrutasaṃhitā*, has been seen as supporting the anteriority of the latter.<sup>373</sup> It

must be conceded that it is probable indeed that an Uttaratāntṛa with the structure of an appendix precedes an Uttarasthāna that forms an integral part of a treatise.

Finally, a piece of indirect evidence may be interpreted as indicating that *Samgraha* and *Hṛdaya* are later than the version of the *Suśrutasaṃhitā*, together with its Uttaratāntṛa, often ascribed to a Nāgārjuna. Narahari refers in his *Vāgbhaṭamaṇḍana* (chapter 21) to the fact that Vāgbhaṭa adopted the variant *bastidvāra* (A.s.Śā.4.52; A.h.Śā.2.53) instead of the reading *bastamāra* of the *Suśrutasaṃhitā* (Ni.8.14),<sup>374</sup> which was the source of the verse; his information that *bastidvāra* was the reading accepted by the Nāgārjunīyas may mean that *Samgraha* and *Hṛdaya* accepted some revised text of the *Suśrutasaṃhitā*, which was accompanied by the Uttaratāntṛa.

Bheḍa is one of the authorities quoted in the *Samgraha* who are left to be discussed. P.V. Sharma identified some passages which may have been influenced by Bheḍa, but without his name being mentioned. One of these is the description of one of the ways of examining food by the royal physician in order to prevent poisoning of the king (A.s. Sū.8.6–8). This method, the examination of the food's rūpa, called *annasvarūpaparīkṣā* by P.V. Sharma, absent from Caraka and Suśruta, is found in the *Bhelasamhitā* (Sū.18.4–6).

The other medical authorities mentioned by name in the *Samgraha*<sup>375</sup> do not give us clues as to its chronological position. Nevertheless, some of these names are of considerable interest, because they are absent from Caraka- and *Suśrutasaṃhitā*. These noteworthy names are: Ālambāyana, Brhaspati,<sup>376</sup> Kapilabala, Māṇḍavya, and Uśanas.<sup>377</sup> The recipes ascribed to Kauṭilya are not helpful in determining the date of the *Samgraha*.

The external and internal evidence, so far discussed, when taken together, leads to the conclusion that the *Samgraha* is later than Dṛḍhabala's revised and completed version of the *Carakasamhitā* and, very probably, also posterior to the revised and completed version of the *Suśrutasaṃhitā*. The reliability of Śivadāsaśena's remark that Jejjata was one of Vāgbhaṭa's sources determines whether or not the *Samgraha* is posterior to Jejjata, who lived in the seventh or, at the latest, the eighth century. As to the lower limit, the *Samgraha* is probably earlier than the *Mādhavanidāna* and certainly earlier than Vṇida's *Siddhayoga*.

#### Additional evidence concerning the chronological position of the Aṣṭāṅgasamgraha

Not directly related to the date of the *Samgraha*, but of importance for the chronological position of the works ascribed to Vāgbhaṭa in general, is a piece of evidence that, unfortunately, is of dubious value. One of the MSS of Niścala's commentary on the *Cakradatta* contains a quotation from an unspecified work of Vāgbhaṭa, which refers to the (*Bodhi*)*caryāvatāra*.<sup>378</sup> If genuine, this quotation would prove that the work ascribed to Vāgbhaṭa that contained it is posterior to Śāntideva, the author of the *Bodhi-*

caryāvatāra, who probably lived in the seventh century.<sup>379</sup>

Several other features of the *Samgraha* which may throw light on the period of its composition have been studied.

P.V. Sharma<sup>380</sup> advanced that the *Samgraha* shows influence from the side of the *Atharvavedapariśiṣṭa*, a work which he places in a period shortly before the *Samgraha*. The same treatise also influenced Varāhamihira's *Brhatsamhitā*, which dates, in P.V. Sharma's view, from about the same time as the *Samgraha*. He concludes that the *Atharvavedapariśiṣṭa* must have been popular then. An example mentioned by P.V. Sharma is the snapanādhyāya (A.s.U.5); parallels of this chapter<sup>381</sup> mentioned by him are *Atharvavedapariśiṣṭa* 42 and *Brhatsamhitā* 47 (puṣyasnāna).<sup>382</sup> Another example is the prescription to look at ghee, placed in a golden vessel, early in the morning (A.s. Sū.3.23). This practice, called ghṛtāvekṣaṇa, is known to the *Atharvavedapariśiṣṭa* (8) and the *Brhatsamhitā*.<sup>383</sup>

According to the same scholar, the *Kāmandakīya Nītisāra*<sup>384</sup> is another work that left clear traces in the *Samgraha*.<sup>385</sup> P.V. Sharma adduces as examples verses on daily regimen and on the duties of the royal physician towards the king.<sup>386</sup>

Several scholars have claimed that Varāhamihira's *Brhatsamhitā* contains quotations from Vāgbhata<sup>387</sup> in its kāndarpika chapter.<sup>388</sup>

A rather careful study of this subject was written by B.P. Shastri, who was well aware that literal quotations are absent and that Varāhamihira may also have borrowed from Caraka and Suśruta.<sup>389</sup>

The relevant chapter of the *Brhatsamhitā*<sup>390</sup> contains a verse (75.3) that gives a vā-jikaraṇa formulation related to A.s.U.49.392 = A.h.U.39.161, where it is a rasāyana formula.<sup>391</sup> The substances employed are almost the same: equal parts of mākṣīkadhātu, honey, mercury, powdered iron, harītakī, śilājatu and ghee in the *Brhatsamhitā*; unspecified quantities of tāpya (= mākṣīka), honey, mercury, iron, harītakī, śilājatu, ghee and viḍaṅga in A.s. and A.h.; the duration of the treatment differs: twenty-one days in the *Brhatsamhitā*, fifteen in *Samgraha* and *Hṛdaya*.<sup>392</sup> Direct borrowing is not an obvious fact in this case.

More verses from the kāndarpika chapter of the *Brhatsamhitā* deserve to be examined in order to see whether or not borrowing from *Samgraha* or *Hṛdaya* can be established or made probable.

*Brhatsamhitā* 75.4ab is said to be related to A.s.U.50.47a-d = A.h.U.40.31cd-32ab, which verse, however, is very closely related to Su.Ci.26.33.<sup>393</sup> Verse 75.4cd is regarded as related to A.h.U.40.24; this half-verse, mentioning māṣa beans, milk and ghee, may as well have been influenced by Su.Ci.26.29cd-30ab; a similar verse is found in the *Samgraha* (U.50.35); māṣa beans and milk are prescribed as aphrodisiacs in the *Carakasamhitā* too.<sup>394</sup> Verse 75.5 is related to A.s.U.50.41 = A.h.U.40.26, but also to Su.Ci.26.23.<sup>395</sup> Verse 75.6 is related to A.s.U.50.42 = A.h.U.40.27-28ab, but as well to Su.Ci.26.24-25ab.<sup>396</sup> Verse 75.7 is related to A.s.U.50.86 = A.h.U.40.25, but as well to Su.Ci.26.18cd and 19cd.<sup>397</sup> Verse 75.10 is said to be related to A.h. U.39.56-57 (absent from the *Samgraha*),<sup>398</sup> but this relationship is not convincing at all; the plant called gokṣuraka, present in both recipes, is frequently employed for rasāyana and vājīkaraṇa purposes. Verse 75.11 is said to resemble two recipes

found in the chapter on the treatment of gulma (A.h.Ci.14.34 and 37; absent from the *Samgraha*),<sup>399</sup> but, again, the similarities, if present at all, are inconclusive.

The material collected shows that the alleged indebtedness of Vārāhamihira's kāndarpika chapter to the *Samgraha* and *Hṛdaya* has no firm basis. The adduced similarities exist as well between *Bṛhatsaṃhitā* and *Suśrutasaṃhitā*.

Resemblances between the kāndarpika chapter of the *Bṛhatsaṃhitā* and the *Carakasamhitā* have also been found.

*Bṛhatsaṃhitā* 75.8 is related to Ca.Ci.2<sup>1</sup>.47;<sup>400</sup> 75.9 is said to be related to Su.Ci.26.16cd–18ab and Ca.Ci.2<sup>4</sup>.23–24,<sup>401</sup> but the similarities are very superficial;<sup>402</sup> 75.12 is said to be related to Ca.Ci.30.162cd–163ab, although Su.Ci.26.11 should be noticed as well.<sup>403</sup>

Other aspects of the relationship between *Bṛhatsaṃhitā* and *Aṣṭāṅgasamgraha* have also been studied, in particular by P.V. Sharma, who is convinced that both lived in the same area in about the same period.<sup>404</sup>

He lists the following similarities: maṅgalas in śārdūlavikrīḍita metre in both texts; diversity of the metres used;<sup>405</sup> the same types of alaṃkāras;<sup>406</sup> both works are based on a large number of previous treatises;<sup>407</sup> acceptance of both ancient and newly acquired knowledge;<sup>408</sup> the mention of foreign peoples, such as the Yavanas, Cīnas, etc.;<sup>409</sup> the presence of the term mahāmātra;<sup>410</sup> references to the four varṇas;<sup>411</sup> mention of the kalās (arts); religious syncretism in both;<sup>412</sup> influence of the *Atharvaveda* in both; the same type of geography;<sup>413</sup> the references to Purāṇic mythology; the importance of the nakṣatras;<sup>414</sup> the mention of śubha karaṇa, etc.;<sup>415</sup> the use of the term guhyaroga in both;<sup>416</sup> the similarities between several passages;<sup>417</sup> ancient authorities are called muni in both works;<sup>418</sup> the mention of an āvantikamuni by Vārāhamihira<sup>419</sup> and avantisoma by Vāgbhaṭa; references to the cult of Sūrya, the sun god;<sup>420</sup> the mention of maulikabhiṣaḥ by Vārāhamihira;<sup>421</sup> the acquaintance with Tantric practices;<sup>422</sup> the acquaintance with the process called bhānupāka in both works;<sup>423</sup> the same measure of the pala;<sup>424</sup> the increased importance of betel chewing;<sup>425</sup> the use of the term goṣṭha;<sup>426</sup> the importance of the royal physician.<sup>427</sup>

Dissimilarities listed by him are: more geographical names and names of peoples;<sup>428</sup> more diversity of the metres employed;<sup>429</sup> more alaṃkāras;<sup>430</sup> more influence of Kālidāsa; no mention of the Śakas;<sup>431</sup> less religious tolerance;<sup>432</sup> more influence of the *Atharvaveda*; the beginning use of the system of vāras.

P.V. Sharma concludes that the *Aṣṭāṅgasamgraha* is earlier than Vārāhamihira's works or, more probably, of the same period.

P.V. Sharma suggested elsewhere<sup>433</sup> that Vāgbhaṭa underwent the influence of Vārāhamihira in his astronomical concepts, which led him to the conclusion that they lived in about the same period.<sup>434</sup>

P.V. Sharma also examined the relationship between *Bṛhatsaṃhitā* on the one hand, and *Caraka-* and *Suśrutasamhitā* on the other.<sup>435</sup>

As to the relationship with the *Carakasamhitā*, he points to the use of the term triskandha.<sup>436</sup>

The use of terms like maraka,<sup>437</sup> kuhaka,<sup>438</sup> and śalyahr̥t may indicate an acquaintance with the *Suśrutasamhitā*.

All this material can, in my opinion, only suggest that the *Samgraha* and the works of Varāhamihira do not differ very much in age.

G.S. Pendse<sup>439</sup> examined the relationship between the *Samgraha* and Vātsyāyana's *Kāmasūtra*. He concluded that the latter must be earlier, because of the occurrence of the terms *kāntā* and *kāntānuvṛtti*, discussed by Vātsyāyana, in the *Samgraha* (U.50.126 and 123),<sup>440</sup> which also employs the term *catuṣṣaṣṭhī* for *kāmasāstra*.<sup>441</sup>

P.V. Sharma studied a large number of Sanskrit literary works in order to throw light on the chronological position of the *Samgraha* in relation to these compositions.<sup>442</sup>

Aśvaghoṣa<sup>443</sup> mentions Buddha as the *mahābhīṣaj*.<sup>444</sup> Some stanzas occurring in his works show similarities with verses of the *Samgraha*.<sup>445</sup> P.V. Sharma refers to the well-known fact that Aśvaghoṣa is earlier than the author of the *Samgraha*.

Kālidāsa's works show similarities and dissimilarities, when compared with the *Samgraha*. Their examination makes P.V. Sharma conclude that Kālidāsa is earlier.<sup>446</sup>

Bhaṭṭi's *Bhaṭṭikāvya*,<sup>447</sup> Viśākhadatta's *Mudrārākṣasa*,<sup>448</sup> and Śūdraka's *Mṛcchakaṭika*<sup>449</sup> are regarded as somewhat earlier than the *Samgraha*.

Bhāravi, the author of the *Kirātārjunīya*,<sup>450</sup> is thought to be contemporaneous with or slightly later than the author of the *Samgraha*, while the *Hṛdaya* was written after the period of Bhāravi's activity.

Subandhu's *Vāsavadattā*<sup>451</sup> is judged to be posterior to the *Samgraha*. Both works show the same mixture of religions, give evidence of sun worship, and employ a series of the same terms (*aṃśuka*,<sup>452</sup> *citrakalā*, *goṣṭhī*,<sup>453</sup> *kāyamāna*,<sup>454</sup> *maṭha*,<sup>455</sup> *pāṭalī*,<sup>456</sup> *veśyā*). Mercury (*pārada*) is mentioned by Subandhu,<sup>457</sup> and even a *pārada*piṇḍa made by a *dhātuvāda*vid, which indicates that alchemy had developed further than in the period of the *Samgraha*.

Bāṇa<sup>458</sup> is put somewhat later than the author of the *Samgraha*. His works show religious syncretism, mention Buddha as the Jina, and give evidence of sun-worship. Coconut milk (*nārikelodaka*), described in the *Samgraha*, was known to Bāṇa, as well as the *siddhāñjana*.<sup>459</sup> The daily activities of the king are pictured in a way reminding one of the *dinacaryā* chapter of the *Samgraha*. The references to mercury and other metals demonstrate a later stage of development of alchemy than found in the *Samgraha*.<sup>460</sup>

Daṇḍin's *Daśakumāracarita*<sup>461</sup> is thought to be later than the *Samgraha*. Daṇḍin's composition refers to the *siddhāñjana*, known from the *Samgraha*. Some terms employed by both Daṇḍin and the author of the *Samgraha* are *aṃśuka*, *gupti*,<sup>462</sup> *maṭhikā*, and *pāṭalī*.<sup>463</sup>

Māgha's *Śiśupālavadha*<sup>464</sup> is, to judge from its style, clearly later than the *Samgraha*.

P.V. Sharma's detailed studies of all these texts show, again and again, that the *Samgraha* has features in common with works composed in the later Gupta period.<sup>465</sup>

Other details found in the *Samgraha*, studied by the same scholar, confirm this picture.

The descriptions of the seasons contain elements characteristic of the Gupta age.<sup>466</sup> The description of the summer season mentions palm leaves (*tālavṛnta*) used for fanning (Sū.4.35)<sup>467</sup> and a *dhārāgrha* provided with a fountain (*niṣpatadyantrasalila*; Sū.

4.37).

The prescription of guggulu in medoroga and the description of klaibya, etc., point to the Gupta age.<sup>468</sup>

The first mention of a cāraṇa (together with a kathaka) is found in the *Samgraha*.<sup>469</sup>

The importance of añjanas and pādālepas, which belong to the Buddhist siddhis, points to the Gupta period.<sup>470</sup>

Typical of the Gupta period is also the more prominent place of images; statues of Avalokiteśvara begin to appear more and more in that period; the number of arms of various deities grows larger.<sup>471</sup>

The increasing influence of jyotiṣa in general is a characteristic of the Gupta age according to P.V. Sharma.<sup>472</sup> Astrological considerations absent from Caraka and Suśruta are found in the *Samgraha*.<sup>473</sup>

Typical of this age too is the use of the term aliñjara.<sup>474</sup>

A rather important element for the determination of the date of the *Samgraha* is the state of development of rasaśāstra shown in that treatise.<sup>475</sup> Evidence regarding more frequent and new uses of particular inorganic substances and the introduction of new substances might throw some light on the period of its composition. Unfortunately, the data are scanty, in particular regarding mercury and mercurial compounds.<sup>476</sup>

Pārada, not yet employed in *Caraka*- and *Suśrutasaṃhitā* as a term for mercury, occurs, once only, in the *Samgraha*. It is one of the ingredients in a recipe for a rasāyana preparation to be taken internally,<sup>477</sup> which makes P.V. Sharma<sup>478</sup> suggest that processed mercury is meant, in spite of any reference to the processing of mercury in the *Samgraha*.<sup>479</sup>

A substance called rasottama, sometimes thought to be mercury, is prescribed once, for external use in a lepa (A.s.U.30.80 = A.h.U.25.61cd–62ab). However, the verse mentioning it constitutes one of the numerous borrowings from the *Carakasamhitā* (Ci. 25.116),<sup>480</sup> which makes it unsuitable for determining the date of the *Samgraha*.

The meaning of this term is a problematic issue. Indu regards it as mercury (pārada). The verse mentioning it is also found in the *Hṛdaya* (A.h.U.25.61cd–62ab), *Siddhayoga* (44.55), and *Cakradatta* (vraṇaśoṭha 101), which enables us to compare the interpretations of several commentators. Among the commentators on the *Hṛdaya*, Aruṇadatta is silent, the *Kairālī* agrees with Indu, but Śivādāsasena, though identifying rasottama as pārada, adds that some are of the opinion that ghee is meant. The *Hṛdayaprakāśa* of the *Aṣṭāṅgahr̥dayakoṣa* records that ghee is meant, though many (predecessors) identify rasottama as pārada, while the *Śivadīpikā* considers it to be rasāñjana. The *Kusumāvalī* on the *Siddhayoga* remarks that rasottama is either pārada or ghee according to Cakra(pāṇidatta), or the juice (rasa) of sahakāra (i.e., the mango) according to Jinadāsa.

The verse forms part of the *Cakradatta* (vraṇaśoṭha 101), where pāṇa b reads hemakālārasottamaiḥ. Śivādāsasena comments that rasottama is pārada, while others regard it as ghee. Niścalakara mentions that Cakra sees ghee in it, while Jinadāsa interprets it as the sweet juice of sahakāra; he himself is convinced that ghee is meant, because this is the substance corresponding to rasottama in an equivalent recipe of Jātūkamaṇa quoted by him.

Among the alchemical apparatus, the *mūṣā* is known in the *Samgraha*; it is used in the preparation of the *sarvārthasiddhāṇjana* (Sū.8.59) for heating gold and silver, and in the preparation of *bhāskaracūṛṇa* (U.16.27–29) for a related purpose. The *mūṣā* is, however, already mentioned in the *Suśrutasaṃhitā* (U.18.86) and is known to the *Hṛdaya* (U.13.30) too. The *andhamūṣā* is found in a verse common to *Samgraha* (U.16.24) and *Hṛdaya* (U.13.20).

The properties and actions of the metals and alloys called *suvarṇa*, *rūpya*, *tāmra*, *kāṇṣya*, *pittala*, *trapu*, *sīsa*, *kṛṣṇaloha* and *tikṣṇa(loha)* are mentioned at A.s.Sū.12.8–14, but these verses are based on *Suśruta*.<sup>481</sup>

Ādityapāka is mentioned at A.s.U.28.32 (an *ādityapākataila*) and 59 (the process of *ādityapāka* is used in the preparation of the *mahānīlākhyayoga*).

All this material on the state of *rasaśāstra* shows that the *Samgraha* dates from a period that saw the beginning of the increase in the use of inorganic substances.

The mention of the Śakas in the *Samgraha* and the speculation it has elicited have already been discussed. The influences of Buddhism prove that it was still a living force during the period that saw the coming into being of the *Samgraha*.<sup>482</sup>

#### Dates assigned to the Aṣṭāṅgasamgraha

Dates assigned to the Aṣṭāṅgasamgraha are: <sup>483</sup> indefinite time B.C.; <sup>484</sup> the first or second century B.C.; <sup>485</sup> second-third centuries A.D.; <sup>486</sup> posterior to Caraka and *Suśruta* and anterior to *Yājñavalkya* (A.D. 350); <sup>487</sup> between the second and sixth centuries; <sup>488</sup> fifth or sixth century; <sup>489</sup> about A.D. 550, between the *Kāmasūtra* (about A.D. 400) and *Varāhamihira* (A.D. 505–587); <sup>490</sup> late in the sixth or early in the seventh century; <sup>491</sup> about A.D. 625; <sup>492</sup> shortly before I-ching; <sup>493</sup> not later than seventh century A.D.; <sup>494</sup> between seventh and eighth centuries; <sup>495</sup> earlier than the eighth century; <sup>496</sup> between 1010 and 1055 (during the reign of king Bhoja of Dhārā).<sup>497</sup>

#### Date of the Aṣṭāṅgahrdayasaṃhitā

Some non-Indian sources which are important among the external evidence will be discussed first.

The Tibetan translations of the *Hṛdaya* and Candranandana's commentary provide a trustworthy lower limit for both works. Candranandana's commentary, the *Padārthacandrikā*, was rendered into Tibetan by Rin-chen bzän-po between the years 1013 and 1055, the *Hṛdaya* by the Indian scholar (mkhan-po) Jārandhara and Rin-chen bzän-po in the same period.<sup>498</sup>

The hypothesis that the *Hṛdaya* is meant in the Arabic sources referring to a *Kitāb asānkar al-jāmi'* cannot be proved with certainty.<sup>499</sup>

An Arabic author who does undoubtedly refer to the *Aṣṭāṅgahrdayasaṃhitā* is 'Alī ibn Sahl al-Ṭabarī, who names among his Indian medical sources Caraka, *Suśruta*, the *Aṣṭāṅgahrdaya*, and the *Nidāna* in his *Firdaws al-ḥikma fī 'l ṭibb*, written in A.D. 849/850.<sup>500</sup> The *Aṣṭāṅgahrdaya* is quoted by name once;<sup>501</sup> material deriving from the *Hṛdaya* is found in several chapters.<sup>502</sup>

Reliable evidence also consists of quotations in later works, with the obvious proviso that identical verses are absent from the *Samgraha*.

The earliest commentator to quote from Vāgbhaṭa is, according to P.V. Sharma,<sup>503</sup> Jejjāta in his commentary on the *Carakasamhitā*. This assertion is unjustified, since the quotation referred to actually forms part of Cakra's commentary.<sup>504</sup>

The earliest treatise to incorporate numerous verses taken from either *Samgraha* or *Hṛdaya* is the *Mādhavanidāna*. Several chapters of the Nidānasthānas of *Samgraha* and *Hṛdaya* are identical, which makes it impossible to decide which of the two was employed as a source. Stanzas that can only be from the *Hṛdaya*, because the corresponding chapter of the *Samgraha* is in prose, are, fortunately, not rare at all,<sup>505</sup> which proves that the *Hṛdaya* was known to Mādhava.

Vṛnda quotes Vāgbhaṭa by name once only in his *Siddhayoga*, but this verse (1. 27) forms part of both *Samgraha* and *Hṛdaya* (A.h.Ci.1.5 = A.s.Ci.1.6). Verses that can derive from the *Hṛdaya* only are found at several places in the *Siddhayoga*,<sup>506</sup> which, as to be expected, shows that the former was extant in the period of Vṛnda's activity.

The *Cakradatta* uses the *Hṛdaya* extensively as a source,<sup>507</sup> which, again, does not add new chronological clues.

The uncertain dates of several Purāṇas prevent that data they contain can be made use of in determining the date of the *Hṛdaya*. This applies in the first place to the *Garuḍapurāṇa*, which contains a version of the Nidānasthāna of the *Hṛdaya*.<sup>508</sup> The *Agnipurāṇa*<sup>509</sup> and the *Viṣṇudharmottarapurāṇa*<sup>510</sup> present short medical sections with some similarities.

The sources of the *Hṛdaya* are, in the same way as those of the *Samgraha*, of much importance for the determination of its terminus post quem. Some commentators provide us with material on this issue.

Cakrapāṇidatta remarks (ad Ca.Ci.3.197–200ab) that Vāgbhaṭa follows Śaunaka; the uncertain date of this authority makes the remark unsuitable for chronological purposes.

Cakrapāṇidatta also states (ad Ca.Sū.7.45–50) that Vāgbhaṭa follows Haricandra in a verse on the months suitable to the elimination of doṣas that accumulated in a particular season. He literally quotes A.h.Sū.13.33cd–34ab as the verse that agrees with Haricandra's opinion, without declaring explicitly whether or not it is a direct borrowing. Nīścala records (ad *Cakradatta*, sneha 6) that Vāgbhaṭa quotes Bhaṭṭārahari(ś)candra's own saṃhitā (svasaṃhitā). The reproduced ardhāśloka from Hari(ś)candra's treatise is closely related to A.h.Sū.13.33cd without being completely identical. The order of the months mentioned differs slightly: kārtike śrāvaṇe in Nīścala's quotation, śrāvaṇe kārtike in the text of the *Hṛdaya*. This small difference is not without importance, for the order of the months has to correspond to the order of the seasons enumerated in the second half of the verse. They do correspond, correctly, in the verse of the *Hṛdaya*, which implies that the second half of Haricandra's verse, as cited by Nīścala, must differ from A.h.Sū.13.34ab. This second half, identical in Haricandra's saṃhitā and Vāgbhaṭa's work according to Nīścala, is different indeed in such a way that the traditional correspondences are maintained. However, since this ardhāśloka is not identical with



A.h.Sū.34ab, we are faced with a problem. Cakra throws some light on this question. He quotes the complete stanza, which remains incomplete in Niścāla's commentary, where pāda d is missing, as an alternative śloka read by someone (probably not Haricandra), adding that it is of no concern because its meaning is the same. Śivadāsa, however, who quotes the second half of the alternative verse (ad Ca.Sū.13.45–50) as coming from some other treatise, objects to its mention of incorrect intervals of three months. The material available shows that the *Hṛdaya* follows Haricandra, but does not enable us to decide whether or not it quotes him literally. The verse discussed does not form part of the *Samgraha*. The interrelatedness of the dates of Hari(ś)candra and the *Hṛdaya* does not permit a conclusion from the discussed material on the date of the latter.

Another indication regarding the chronological position of the *Hṛdaya* is supplied by Śivadāsa. This commentator remarks (ad *Cakradatta*, dantamūlaroga 23–24), when quoting A.h.U.22.41cd, that Vāgbhāṭa follows Jejjāṭa, which would mean, if Śivadāsa can be trusted, that the latter preceded the former, which cannot be excluded, because Jejjāṭa lived in the seventh or, at the latest, the eighth century.<sup>511</sup>

The commentator on the *Āyurvedābhdhisāra* claims that one verse of the *Hṛdaya* (Ni.2.44cd–45ab) has been borrowed from Hārīta,<sup>512</sup> but this remark does not elucidate the date of the *Hṛdaya*.

The internal evidence on the sources of the *Hṛdaya* consists in the first place of authorities mentioned in the treatise itself.

Ātreya's name appears, in the same way as in the *Samgraha*, at the beginning of each chapter. Called Atriputra (Atri's son), he receives, together with other sages, the āyurveda from Indra (Sū.1.3). Ātreya, under the name of Atrinandana (also meaning Atri's son), is mentioned as the one who states that the junctures (sandhi) are 2,000 in number, while Dhanvantari regards their number to be 210 (Śā.3.16cd–17ab). His opinion on the agent responsible for the digestion of the food (the annapakṭar) is contrasted with that of another authority not referred to by name, who is, however, Dhanvantari (Śā.3.49);<sup>513</sup> Ātreya declares that the heat (ūṣman) inherent in doṣas, dhātus and malas is this agent, whereas the other authority considers it to be the pācakapitta. Ātreya is said to learn that, when a disease suddenly leaves off in a weak patient, his life is endangered (Śā.5.128). The recipe called puṣyānugacūrṇa is described as being esteemed by Ātreya (U.34.50ab).<sup>514</sup> Ātreya is mentioned as Agniveśa's teacher (U.40.59); Ātreya, called Punarvasu on this occasion, is referred to again as the teacher of Agniveśa (U.40.62).

Caraka is mentioned a number of times. His definition of vīrya (Ca.Ci.26.65) is quoted (Sū.9.13cd–14ab).<sup>515</sup> Caraka's name appears, together with those of other ancient authorities, in a few verses towards the end of the treatise (U.40.84 and 88).<sup>516</sup>

Agniveśa receives the āyurveda from Atriputra (Sū.1.3–4ab). His opinion on the maryādās of the doṣas in fevers is contrasted with that of Hārīta (A.h.Ni.2.60–63 = A.s. Ni.2.62–66). Agniveśa is, together with Bheḍa and others, a pupil of Ātreya (U.40.59); he is the foremost pupil of Punarvasu (Ātreya) (U.40.62).

Suśruta's opinion on the treatment of granthi (U.30.31c–f) is contrasted with that

of Nimi (U.30.30cd–31ab), and, again, with that of an unnamed authority (U.30.32). Suśruta is mentioned, together with Caraka and other authorities, towards the end of the treatise (U.40.84 and 88).

Dhanvantari is the authority recommending balātaila (Śā.2.52).<sup>517</sup> His number of bones in the human body is three hundred,<sup>518</sup> his number of junctures two hundred and ten (Śā.3.16–17a).<sup>519</sup> In Dhanvantari's opinion, the pitta-dharā kalā is the graha-ṇī (Śā.3.50). A dhānvantara ghee, called after Dhanvantari, is prescribed (Ci.10.63ab; 17.14ab),<sup>520</sup> its preparation and its actions are described (Ci.12.19cd–24).<sup>521</sup>

Bheda is mentioned in connection with the recipe of sahācaratāila (Ci.21.70–73ab), as in the *Samgraha*. He is, together with Agniveśa and others, one of the pupils of Agniveśa (U.40.59). One of the last verses refers to him as a medical authority (U.40.88).

The other authorities mentioned in the *Hṛdaya* are not helpful in elucidating its date.

This internal evidence on the sources of the *Hṛdaya* does not give us new chronological clues, when compared with that found in the *Samgraha*.

The *Hṛdaya* is obviously posterior to Dṛḍhabala's recension of the *Carakasamhitā*,<sup>522</sup> because it contains many verses which are literally identical with verses found in the chapters that Dṛḍhabala contributed.

It is also later than the *Suśrutasaṃhitā* before its later revision and the addition of the Uttaratantra because Suśruta is referred to. Some verses of the *Hṛdaya* are almost identical with stanzas found in the Cikitsāsthāna of the *Suśrutasaṃhitā*.<sup>523</sup>

Divergent opinions have been expressed concerning the question whether or not the *Hṛdaya* is later than the revision of the *Suśrutasaṃhitā* often ascribed to a Nāgārjuna. This issue poses problems similar to those discussed with respect to the *Samgraha*, but it should be noted that the *Hṛdaya* contains some verses, absent from the *Samgraha*, which are very close to stanzas found in the Uttaratantra of the *Suśrutasaṃhitā*,<sup>524</sup> and, more importantly, a number of verses common to both works.<sup>525</sup> These facts are in favour of the hypothesis that the Uttaratantra belongs to the sources of the *Hṛdaya*.

Other features of the *Hṛdaya* have been used in elucidating its date.

The relationship between *Hṛdaya* and *Śukranīti* has been studied by P.V. Sharma,<sup>526</sup> who claims<sup>527</sup> that the sadvṛtta section of the *Hṛdaya* has about fifty verses in common with the *Śukranīti*,<sup>528</sup> which, for that reason, must have existed in some form before the *Hṛdaya* was written, in spite of the late date of the version now known.<sup>529</sup> This possibility is confirmed by quotations from the *Śukranīti* in Caṇḍeśvara's *Rājanītiratnākara*.<sup>530</sup>

P.V. Sharma<sup>531</sup> advanced that the *Hṛdaya* must be later than Bhāravi's *Kirātārjunīya*, because the latter's alaṃkāras have influenced the former.

G.S. Pendse<sup>532</sup> argued that the *Hṛdaya* must be later than Vātsyāyana's *Kāmasūtra*, a work that is in all probability referred to.<sup>533</sup>

Mercury (pārada) is prescribed in a verse common to *Hṛdaya* and *Samgraha* (A.h. U.39.161 = A.s.U.49.392). Additional references to mercury are found at A.h.U.32.31 (pārada) and U.13.36 (rasendra).<sup>534</sup> These two verses mention it as an ingredient of preparations for external use.

Sulphur may be prescribed for external use only.<sup>535</sup>

The alchemical apparatus called mūṣā is known to the *Hṛdaya* (U.13.30). The

andhamūṣā is mentioned in a verse common to *Hṛdaya* and *Samgraha* (A.h.U.13.20 = A.s.U.16.24) and in one more verse (A.h.U. 13.32).

Atrideva (ABI 210) says that the variety of the metres used and the preference for long compounds point to the Gupta age.

All this material does not advance very much the determination of the date of the *Hṛdaya*. The facts known prove that it is later than Dr̥ḥabala's version of the *Carakasamhitā* and earlier than the *Mādhavanidāna*. If Śivādāsa is reliable, the *Hṛdaya* may be posterior to Jejjāṭa.

#### Dates assigned to the Aṣṭāṅghṛdayasamhitā

Dates assigned to the Aṣṭāṅghṛdayasamhitā are: <sup>536</sup> first or second century B.C.; <sup>537</sup> fifth century A.D. or earlier; <sup>538</sup> there is no reason to put him more than a century after his elder namesake; <sup>539</sup> earlier than the seventh century; <sup>540</sup> seventh century at the latest; <sup>541</sup> the earlier part of the seventh century; <sup>542</sup> seventh century, shortly before I-ching; <sup>543</sup> between the seventh and eighth centuries; <sup>544</sup> the eighth century; <sup>545</sup> the eighth or ninth century; <sup>546</sup> eighth century at the latest; <sup>547</sup> between the eighth and tenth centuries; <sup>548</sup> ninth century; <sup>549</sup> the end of the twelfth to the beginning of the thirteenth century; <sup>550</sup> no conclusion. <sup>551</sup>

#### Structural features of the Samgraha and the Hṛdaya

The division into sections (sthāna) agrees, broadly, with that of the *Suśrutasaṃhitā*, and differs considerably from that found in the *Carakasamhitā*. The latter's Vimāna-, Indriya- and Siddhisthānas are absent, as they are from the *Suśrutasaṃhitā*. An Uttarasthāna is added, in the same way as the Uttara tantra to the *Suśrutasaṃhitā*, but, as its title indicates, it forms an integral part of the treatise. The order of the sections differs from that found in *Caraka*- and *Suśrutasaṃhitā* in placing the Śārīrasthāna before the Nidānasthāna. This may be seen as an improvement, because the subject matter is arranged more systematically in this way, by dealing first with all general subjects before beginning to describe the diseases and their treatment.

The contents of the sthānas show many innovations.

The procedures belonging to pañcakarman, dealt with in the Siddhisthāna of the *Carakasamhitā* and the last part of the Cikitsāsthāna of the *Suśrutasaṃhitā*, form part of the Sūtrasthāna and Kalpasthāna, and are, in the Sūtrasthāna, preceded by chapters on oleation (sneha) and sudation (sveda), as in Suśruta's Cikitsāsthāna, while the chapters on these topics in Caraka's Sūtrasthāna appear to have no appropriate context. <sup>552</sup> The subjects discussed in Caraka's Indriyasthāna, which are incorporated in the Sūtrasthāna of the *Suśrutasaṃhitā*, are found in the last chapters of the Śārīrasthāna of *Samgraha* and *Hṛdaya*.

The order of the diseases discussed in the Nidānasthāna is peculiar and differs considerably from that found in the corresponding sections of *Caraka*- and *Suśrutasaṃhitā*.

The first chapter (sarvaroganidāna) is on the five elements constituting nidāna, on some related concepts, the causes of excitement of the doṣas, and astrological consid-

erations relating to fevers.

Chapter two is on fever, which is also the first disease described in the Nidānasthāna of the *Carakasamhitā*. Chapter three is on raktapitta and kāsa, thus illustrating a pronounced special feature, consisting of the grouping together of particular diseases in one chapter, a practice already present, but less conspicuously, in the Nidānasthāna of the *Suśrutasamhitā*. Raktapitta is dealt with in chapter two of Caraka's Nidānasthāna, not in Suśruta's Nidānasthāna; the nidāna of kāsa is absent from the Nidānasthānas of Caraka and Suśruta and discussed in Ca.Ci.18 and Su.U.52 respectively; the description of kāsa immediately after raktapitta is explained by the statement that it is a dangerous complication of raktapitta (A.s.Ni.3.18cd–19 = A.h.Ni.3.16cd–17ab); an interesting parallel is the presence of a chapter on kāsānidāna in the *Bhelasamhitā* (Ni.4.). Chapter four is on śvāsa and hidhmā, subjects not dealt with in the Nidānasthānas of Caraka and Suśruta, but often clustered together, for example in Ca.Ci.17, and thought to be related to kāsa (Ca.Ci.18). Chapter five begins with the nidāna of rājayaḥṣman, described in the Nidānasthāna of the *Carakasamhitā* (Ni.6: śoṣānidāna), but absent from the Nidānasthāna of the *Suśrutasamhitā*; it proceeds with the nidāna of svarabheda, arocaka, chardi, hṛdroga and tṛṣṇā, regarded as upadravas of rājayaḥṣman and not discussed in Caraka's Nidānasthāna. Chapter six is remarkable in being devoted to madātyaya, absent from the Nidānasthānas of Caraka and Suśruta; the same chapter discusses mada, mūrchā and saṃnyāsa. Chapter seven deals with arśas, absent from Caraka's, but present in Suśruta's Nidānasthāna. Chapter eight describes the nidāna of atisāra and grahaṇī, both absent from Caraka's and Suśruta's Nidānasthānas. Chapter nine is about mūtrāḥghāta and related disorders, not described in the Nidānasthāna of Caraka; Suśruta has a chapter on the nidāna of āsmarī and śarkarā (Ni.3). Chapter ten, on prameha, has a corresponding chapter in the Nidānasthānas of Caraka (Ni.4) and Suśruta (Ni.6); this chapter also describes the pramehapiṭikās. Chapter eleven is devoted to the cluster consisting of vidradhi, vṛddhi and gulma; gulma is dealt with in the Nidānasthāna of Caraka (Ni.3) and vidradhi in a separate chapter of the Nidānasthāna of the *Suśrutasamhitā* (Ni.9), while vṛddhi is described, together with upadaṃśa and ślīpada, in a chapter of Suśruta's Nidānasthāna (Ni.12). Chapter twelve deals with udara, absent from Caraka's, but present in Suśruta's Nidānasthāna (Ni.7). Chapter thirteen has an unusual cluster: pāṇḍu(roga), śopha and visarpa; Suśruta deals with visarpa in a chapter with another cluster (Ni.10: visarpa, nāḍī, stanaroga), while all three are absent from Caraka's Nidānasthāna. Chapter fourteen is about kuṣṭha, śvitra and kṛmi(roga); kuṣṭha, to which śvitra is closely related, is described in the Nidānasthānas of both Caraka (Ni.5) and Suśruta (Ni.5), where kṛmiroga is absent. Chapter fifteen discusses vātavyādhī, absent from Caraka's, but present in Suśruta's Nidānasthāna (Ni.1). Chapter sixteen is devoted to vātaśoṇita, absent from Caraka's and Suśruta's Nidānasthāna.

The Cikitsāsthāna describes the treatment of the diseases discussed in the Nidānasthāna, but has more chapters by splitting up some of the clusters.

The Kalpasthāna differs from the sections of the same name of *Caraka-* and *Suśrutasamhitā* in being devoted to emetic and purgative procedures, to complications that may occur during them, to the treatment with clysters and its complications, and

to rules for the preparation of drugs.

The contents of the Uttarasthāna differ from those of Suśruta's Uttaratantra in dealing only partly with the same topics and these in a different order. Remarkable is the systematic arrangement of its subject matter: kaumārabhr̥tya,<sup>553</sup> bhūṭavidyā,<sup>554</sup> mānasaroga (mental disorders),<sup>555</sup> śālākya,<sup>556</sup> śalya,<sup>557</sup> kṣudrarogas,<sup>558</sup> guhyarogas,<sup>559</sup> agadatantra,<sup>560</sup> rasāyana,<sup>561</sup> and vājīkaraṇa.<sup>562</sup> The presence of the chapters on rasāyana and vājīkaraṇa at the end of the treatise is very remarkable; these subjects are discussed at the beginning of the Cikitsāsthāna in the *Carakasamhitā*, while the relevant chapters precede those on pañcakarman and related topics in the Cikitsāsthāna of the *Suśrutasaṃhitā*.

This survey demonstrates that *Samgraha* and *Hṛdaya* do not simply follow either Caraka or Suśruta by selecting when to follow the one or the other, but have, apart from being influenced by the preceding two works, an independent orientation, shown by the structure of their sthānas.

Hoernle<sup>563</sup> expressed as his opinion that it was Vāgbhaṭa's object to gather up into a harmonious whole the more or less conflicting medical systems current in his time, especially those contained in the saṃhitās of Caraka and Suśruta. Hoernle added that, in pursuance of this object, Vāgbhaṭa introduced, especially with reference to the diseases of the eye, many modifications in the classification and nomenclature which had hitherto been accepted. He also supposed that it led Vāgbhaṭa to the adoption of compromises – by no means always successful – of which his exposition of the skeleton presents a conspicuous example.

These conclusions, mainly based on Hoernle's detailed and systematic study of Indian osteology, require a critical appraisal, departing from a renewed comparison of the texts of *Samgraha* and *Hṛdaya* with the *Caraka-* and *Suśrutasaṃhitā*.

Both *Samgraha* and *Hṛdaya* contain much material that is literally found in the *Carakasamhitā*. Adaptations, very close to the original text, are also frequent.

The attitude towards the *Suśrutasaṃhitā* is completely different, since it is less frequently quoted. Passages in prose and verse found in *Samgraha* and *Hṛdaya* may be close to the text of the *Suśrutasaṃhitā*, but contain almost always changes.

These contrasting ways of handling the treatises of Caraka and Suśruta are hard to explain.

Worthy of as much attention, but less taken notice of,<sup>564</sup> is the absence of material found in Caraka and Suśruta. The expositions of theories allied to the Vaiśeṣika, Sāṃkhya and Nyāya systems of philosophy, important aspects of the *Carakasamhitā*, are conspicuous by their absence. This applies, for example, as well to the chapter on the three aims of life (Sū.11: traiṣaṇīya), the description of the way to liberation (mokṣa), and the discussions of groups of sages. In general, the role of the mahābhūtas recedes into the background.

Hoernle is not justified in claiming that the object of both treatises was to harmonize conflicting views of Caraka and Suśruta. In any case, it is not the only aim. The *Samgraha* in particular very often mentions side by side disagreeing opinions which derive from these authorities. Sometimes one of them or both names are mentioned, sometimes they are absent.

An example is the list specifying the amounts of the bodily constituents. *Samgraha* (Śā.5.63) and *Hṛdaya* (Śā.3.80–81) follow Caraka, but the *Samgraha* adds the opinion of the Dhanvantarīyas (Śā.5.65), which agrees with that of Suśruta.

The chapter on the vessels of the *Samgraha* states that sirās and dhmanīs are specialized types of vessels (srotas), which means that they are essentially the same. The point of view that all three are different structures is referred to as held by others, as is a third opinion that vessels have many names (Śā.6.20). The first theory, accepted by the author, is that found in the *Carakasamhitā*, the second theory is characteristic of the *Suśrutasamhitā*.

Both examples do not testify to a tendency to harmonization.

This is not to say that a tendency to accept both *Caraka*- and *Suśrutasamhitā* is completely absent.

An example illustrating this tendency in the *Samgraha* is the presence of two mantras aiming at an easy delivery (Śā.3.20–22). The first derives from Caraka (Śā.8.39), the second is identical with one of Suśruta's cyāvanamantras (Ci.15.6–8). The *Hṛdaya* omits these mantras, restricting itself to the recommendation to perform the required ceremonies (Śā.1.77).<sup>565</sup> Another example is the osteological system.<sup>566</sup> A third example is the typology of the napuṃsakas in the *Samgraha*. Its eight types (Śā.2.21–28) clearly result from a combination of the lists of Caraka and Suśruta.<sup>567</sup> A fourth example is the classification of the types of prameha,<sup>568</sup> a fifth that of the types of kuṣṭha,<sup>569</sup> a sixth that of the types of sveda.<sup>570</sup>

Another feature of both *Samgraha* and *Hṛdaya* consists of a tendency to complete developments already on their way in the works of Caraka and Suśruta. This is illustrated by the names of the five kinds of kapha, absent from Caraka and Suśruta, but supplied for the first time by *Samgraha* and *Hṛdaya* (A.h.Sū.12.15–18ab; A.s.Sū.20.4).

A remarkable feature of the *Samgraha* is that it versifies the material found in prose in one of the chapters of the *Carakasamhitā*.<sup>571</sup> Evidence of the same procedure, applied to the *Suśrutasamhitā*, is found in the chapters on groups of drugs in both *Samgraha* and *Hṛdaya*.<sup>572</sup>

The obvious fact that *Samgraha* and *Hṛdaya* have many features in common belongs to the arsenal of arguments adduced by many scholars to defend the view that they were written by one and the same person. Such a conclusion is, however, not justified at all. The *Hṛdaya* is simply largely based on the *Samgraha* or it is the other way round, which explains what is common to both, while, moreover, the considerable number of discrepancies conflicts with a common authorship.

#### Special features common to the *Samgraha* and the *Hṛdaya*

The amount of special features found in both treatises is large; a series of examples may suffice to give an impression of their number and importance.

Transitional periods between seasons (ṛtusandhi) are described (A.s.Sū.4.61; A.h.Sū.3.58); they consist of the seven last and seven first days of a season;<sup>573</sup> the chapters on the groups of drugs (A.s.Sū.16; A.h.Sū.15) omit some of Suśruta's gaṇas (Sū.38)<sup>574</sup> and make some changes in other groups;<sup>575</sup> an additional blunt instrument

(yantra), called mucuṇḍī (A.h.Sū.25.9) or mucuṭī (A.s.Sū.34.6) is described; some more additional yantras are: aṅgulītrāṇaka (A.h.Sū.25.21; A.s.Sū.34.11), śṛṅga, alābu and ghaṭī (A.s.Sū.34.13; A.h.Sū.25.26–28ab); vālaka and latā are absent among the anyantras (A.s.Sū.34.17; A.h.Sū.25.39cd–40), although they form part of Suśruta's list;<sup>576</sup> the number of sharp instruments (śastra) is twenty-six (A.s.Sū.34.21; A.h.Sū.26.1), whereas their number is twenty in the *Suśrutasamhitā* (Sū.8.3);<sup>577</sup> some added śastras are the sarpavaktra (A.s.Sū.34.21) or sarpāsya (A.h.Sū.26.8ab) and kartarī (A.s.Sū.34.26; A.h.Sū.26.17cd); the surgical procedures (śastrakarman) are of twelve (A.s.Sū.34.22) or thirteen kinds (A.h.Sū.26.28cd–29ab), while they are of eight kinds in Suśruta (Sū.8.4; Sū.25), of six kinds in Caraka (Ci.25.55);<sup>578</sup> kāmālā (jaundice) is described as a disease that may arise without the presence of pāṇḍuroga in a person who has a profuse amount of pitta (pittolbhaṇa) (A.s.Ni.13.18cd; A.h.Ni.13.17cd);<sup>579</sup> the number of bālagrahas is twelve, while Suśruta has a number of nine; added are Śvagraha, Pitrgraha and Śuṣkarevatī;<sup>580</sup> the number of eye diseases is ninety-four (A.s.U.20.36 = A.h.U.16.60cd–61ab);<sup>581</sup> the diseases of the ears are twenty-five in number (A.s.U.21.30; A.h.U.17.26cd), whereas Suśruta's number is twenty-eight;<sup>582</sup> new diseases of the ears are: kuci- or kūcikarṇaka (A.s.U.21.17; A.h.U.17.16ab), pālīśoṣa (A.s.U.21.21; A.h.U.17.19ab), pippalī (A.s.U.21.18; A.h.U.17.16cd–17a), tantrikā (A.s.U.21.22; A.h.U.17.19cd), and vidārikā (A.s.U.21.19–20; A.h.U.17.17b–18);<sup>583</sup> gallira is new as a synonym of unmantha (A.s.U.21.26; A.h.U.17.23ab); karṇaśūla is described much more elaborately (A.s.U.21.2–4; A.h.U.17.1–3) than in Suśruta (U.20.6); five types are distinguished and characterized, whereas Suśruta has one type only;<sup>584</sup> a purulent discharge is described in karṇaśūla due to pitta (A.s.U.21.5; A.h.U.17.4–5ab);<sup>585</sup> the techniques for repair of the earlobes (A.s.U.22.53–68) have names that partly differ from those used in the *Suśrutasamhitā*; an additional technique is called śuṣkaśaṣkuli; the number of diseases of the nose is eighteen (A.s.U.23.27ef; A.h.U.19.27cd), while Suśruta's number is thirty-one; the disease of the nose called apīnasa is elaborately and very well described; the term singhāṇaka is used for the mucous discharge (A.s.U.23.20–21 = A.h.U.19.20–21);<sup>586</sup> putaka is a new disease of the nose (A.s.U.23.25; A.h.U.19.25); the mukharogas are seventy-five in number, while Suśruta's number is sixty-five; khaṇḍauṣṭha (A.s.U.25.4 = A.h.U.21.3cd) and gaṇḍālaṇī (A.s.U.25.14 = A.h.U.21.1ab) are new; the descriptions of dālana (A.s.U.25.15 = A.h.U.21.11cd–12ab) and dantahaṛṣa (A.s.U.25.16 = A.h.U.21.12cd–13ab) differ from those in the *Suśrutasamhitā*; bhañjanaka and hanumokṣa are omitted; cāla (A.s.U.25.17cd = A.h.U.21.14ab), dantabheda (A.s.U.25.17ab = A.h.U.21.13cd), karāla (A.s.U.25.18 = A.h.U.21.14cd), and adhidanta (A.s.U.25.19 = A.h.U.21.15) are added;<sup>587</sup> adhijihva is a jihvāroga (A.s.U.25.38 = A.h.U.21.34–35ab), whereas it is one of the kaṇṭharogas in the *Suśrutasamhitā* (Ni.16.52); the description of this disease does not agree with Suśruta;<sup>588</sup> the chapters on mukharoga do not describe adhrūṣa and tuṇḍikerī among the diseases of the palate (A.s.U.25; A.h.U.21), although mentioned as such by Suśruta; tālupīṭakā (A.s.U.25.40 = A.h.U.21.36.) replaces adhrūṣa, while tuṇḍikerikā (A.s.U.25.54 = A.h.U.21.47) is a disease of the throat; Suśruta's māṇṣasamghāta is replaced by tālusaṃphati (A.s.U.25.42 = A.h.U.21.38cd); galārbuda (A.s.U.25.60 = A.h.U.21.52cd–53ab) and galaṅgaṇḍa (A.s.U.25.61 = A.h.U.21.53c-f)

are regarded as belonging to the mukharogas;<sup>589</sup> a new mukharoga called ūrdhvaguda (A.s.U.25.68 = A.h.U.21.60), characterized by foetor ex ore, is added;<sup>590</sup> an arbuda due to kapha and pūyāsyatā (A.s.U.25.73 = A.h.U.21.64ab) are two more new mukharogas;<sup>591</sup> tooth extraction is described (A.s.U.26.18; A.h.U.22.23–27ab);<sup>592</sup> a group of nine kapālarogas is new as an addition to the śīrorogas (A.s.U.27.21 = A.h.U.23.20cd); the main part of this group belongs to Suśruta's kṣudrarogas;<sup>593</sup> a new disease belonging to the group is upaśīrṣaka (A.s.U.27.22 = A.h.U.23.21); anantavāta is absent from the śīrorogas, while śīraḥkampa is added (A.s.U.27.15 = A.h.U.23.15cd);<sup>594</sup> two separate chapters deal with guhyarogas (A.s.U.38 and 39; A.h.U. 33 and 34).<sup>595</sup>

A few new prescriptions found in both works are: a phānta or hima of drākṣā, perfumed by jāti flowers (A.s.Ci.1.84cd = A.h.Ci.1.57ab);<sup>596</sup> the expressed juice (svarasa) or decoction (śṛta) of vāsā, also called vṛṣa, with sugar and honey against raktapitta (A.s.Ci.3.31; A.h.Ci.2.26);<sup>597</sup> the kalpas of nāgabala, maṇḍūkapaṇi, (maḍhu)yaṣṭi and vittauśadha (= ginger) (A.s.Ci.5.66–67 = A.h.Ci.3.118cd–120ab); powdered coral (pravālacūrṇa) with taṇḍulodaka against mūtrāghāta due to kapha (A.s.Ci.13.5; A.h.Ci.11.13ab);<sup>598</sup> haridrā together with honey and āmalaka juice, or the expressed juice of either guḍūci or āmalaka, against all types of prameha (A.s.Ci.14.5; A.h.Ci.12.5cd–7ab);<sup>599</sup> eraṇḍataila with milk against gulma due to pitta (A.s.Ci.16.15; A.h.Ci.14.43);<sup>600</sup> an electuary with kampillaka against the same disorder (A.s.Ci.16.19; A.h.Ci.14.61cd);<sup>601</sup> the rasāyanaprayogas with tuvaraka kernels, bhallātaka, avalguja (= bākucikā), and citraka (= vahni), described in the chapter on the treatment of haemorrhoids (A.s.Ci.21.24; A.h.Ci.19.53);<sup>602</sup> the māñibhadravaṭaka against kuṣṭha (A.s.Ci.21.32–33; A.h.Ci.19.31–32);<sup>603</sup> purification in cases of kuṣṭha may be carried out by the administration of emetics once in six weeks, purgatives each month, evacuatives for the head every three days, and by bloodletting once in six months (A.s.Ci.21.133 = A.h.Ci.19.96);<sup>604</sup> garlic against all cases of āvaraṇa of vāta, with the exception of āvaraṇa by pitta and blood (A.s.Ci.24.50 = A.h.Ci.22.70cd–71ab);<sup>605</sup> a decoction of saptacchada- and arkaḥśīra in kṛmidantaka (A.s.U.26.16; A.h.U.22.20);<sup>606</sup> hiṅgu and kaṭṭhala in toothache (A.s.U.26.17; A.h.U.22.21);<sup>607</sup> triphalā with honey against mukhapāka (A.s.U.26.51; A.h.U.22.73cd–74);<sup>608</sup> eraṇḍataila, together with cow's urine, to be drunk for a month in ślīpāda due to vāta (A.s.U.35.19; A.h.U.30.8cd–9);<sup>609</sup> vardhamānahrītakī in ślīpāda due to kapha (A.s.U.35.21; A.h.U.30.11cd–12);<sup>610</sup> purgation by means of arkaḥśīra in alarkaviṣa (A.s.U.46.67 = A.h.U.38.36ab).<sup>611</sup>

The features shared by *Samgraha* and *Hṛdaya* point to a common basis for both works. Whether or not the *Samgraha* as now known should be regarded as the earlier treatise will be discussed later.

#### The hypothesis of one single Vāgbhaṭa

Some Indian scholars protest against the view that the names Vṛddhavāgbhaṭa and Vāgbhaṭa, often employed by commentators in references to and quotations from the *Samgraha* and *Hṛdaya* respectively, indicate two authors, who, moreover, may differ in age.



The names Vṛddhavāgbhaṭa and Vāgbhaṭa do not point to different persons in their opinion, but, instead, to two different works only, a larger and a smaller version of one basic text, which have been composed by one and the same person.<sup>612</sup>

G. Hāldār (Vṛddhatrayī 280–282) was of the opinion that Vāgbhaṭa wrote the *Hṛdaya* after the *Samgraha* in order to deal with the same subjects in a more intelligible and accessible way (sugamataratva). He refers to Nāgeśabhaṭṭa as an author who did the same, by composing his *Laghumañi jūṣā* after having written the *Brhatsiddhāntamañi jūṣā*. The appellation Vṛddhavāgbhaṭa for the *Samgraha* or its author does not indicate at all, in his view, that an older and distinct person is meant.

Yādavaśarman said that Vāgbhaṭa culled his material from Caraka and Suśruta without changing it in composing the *Samgraha*, while he transformed it by introducing many changes in the *Hṛdaya*.<sup>613</sup> This view does not agree with the facts at all.

H. Parāḍkar<sup>614</sup> supposes that Vāgbhaṭa, being afraid that his large and difficult *Samgraha* would fall into oblivion, decided to write a smaller treatise, easier to understand. In support of this idea, he refers to a verse (A.h.U.39.148), where diseases of old age, to be treated successfully by a particular drug, are compared to voluminous books which have not been studied properly. Assuming that Parāḍkar regards this as a taunt directed at the *Samgraha*, the guess that it derives from a different author would be as justifiable in my opinion.

A scholar who defended that both *Samgraha* and *Hṛdaya* were written by one author, but clearly acknowledging the differences between these works, was Nandkiśor Śarmā; he explained the differences by suggesting that Vāgbhaṭa's views had changed in the course of time under the influence of changes in the society in which he lived.<sup>615</sup>

Atrideva<sup>616</sup> suggested that the differences in style of the *Hṛdaya* and its new prescriptions, etc., are due to the fully developed maturity and the experience of Vāgbhaṭa when he wrote that work.

A combination of both styles of reasoning has been developed by K.R. Srikantha Murthy.<sup>617</sup> Two entirely different lines of thought are discernible in his argumentation. (1) There was a lack of attention from the side of the author when he prepared the *Samgraha*; being wholly intent on the collection of material from a large number of texts, he did not pay much heed to their evaluation; after completing the *Samgraha*, Vāgbhaṭa noticed many inaccuracies and blemishes, and felt the need to set them right in the *Hṛdaya*. (2) Changes in the social, religious and political conditions which took place quickly after the disappearance of the Gupta empire had their effect on literary works, including medical treatises.

Those advocating that *Samgraha* and *Hṛdaya* were written by one and the same Vāgbhaṭa muster, in general, vague or otherwise weak, untenable or wrong arguments, such as the similarity in language and style,<sup>618</sup> the same method of presentation,<sup>619</sup> the complete absence of divergences in opinion<sup>620</sup> or the paucity of these differences,<sup>621</sup> the presence of elements of Buddhist origin in both works,<sup>622</sup> the same parentage of the authors,<sup>623</sup> the statement at the end of the *Hṛdaya* that may refer to the *Samgraha*,<sup>624</sup> and the conviction about the identity expressed by many commentators.<sup>625</sup>

All these scholars assume the existence of one single Vāgbhaṭa and the anteriority

of the *Samgraha*. None of them makes explicit which changes, social, religious, economic or political, are reflected in the two works when compared with each other. Nor do we find examples attesting that the *Hṛdaya* was written by a more mature and experienced mind. Inaccuracies and blemishes of the *Samgraha* have not been collected and discussed.

The similarity in language and style of *Samgraha* and *Hṛdaya*, used as an argument in support of one author, is, partially at least, certainly present, but cannot be regarded as decisive. One of the two has extensively borrowed from the other, but this need not mean at all that they were composed by one author.

The method of presentation is difficult to define, unless it means that both works present their teachings as delivered by the same group of sages.

The absence or paucity of divergences in opinion is entirely wrong as an argument, as will be clear to anyone who has studied both works.

Buddhist elements are present in both works, which can partly be explained as evidence of borrowing. In general, the *Samgraha* has more of these elements, but, on the other hand, the *Hṛdaya* adds some.

The same parentage of the authors is found in the colophons only, which does not constitute a valid argument. A verse towards the end of the *Hṛdaya* (U.40.83) does not give Vāgbhaṭa's genealogy, nor his own name. Nandkiśor Śarmā tried to reason this difficulty away by stating that it was not necessary at all for the author to repeat this information, already present in the *Samgraha*.<sup>626</sup>

Some verses at the end of the *Hṛdaya* are thought to prove that it was written by the author of the *Samgraha* after completion of the latter work,<sup>627</sup> but these stanzas do not convincingly indicate that one and the same author wrote both works.

#### Dates assigned to one single Vāgbhaṭa

Dates assigned to one single Vāgbhaṭa are: 3000 B.C.;<sup>628</sup> first or second century B.C.;<sup>629</sup> 200 B.C.;<sup>630</sup> about the second century B.C.;<sup>631</sup> second century A.D.;<sup>632</sup> the end of the second to the beginning of the third century A.D.;<sup>633</sup> not later than the fourth century;<sup>634</sup> the fourth century;<sup>635</sup> the second half of the fourth century;<sup>636</sup> the fourth or the fifth century at the latest or even earlier;<sup>637</sup> the end of the fourth or the beginning of the fifth century;<sup>638</sup> the beginning of the fifth century;<sup>639</sup> the fifth century;<sup>640</sup> A.D. 420–525;<sup>641</sup> the sixth century;<sup>642</sup> A.D. 550–600;<sup>643</sup> the seventh century at the latest, probably earlier;<sup>644</sup> the seventh century or a little earlier;<sup>645</sup> about the seventh century;<sup>646</sup> the seventh century;<sup>647</sup> the middle of the seventh century;<sup>648</sup> the eighth century;<sup>649</sup> about A.D. 850;<sup>650</sup> the ninth century;<sup>651</sup> during the reign of Jayasinha, in the middle of the twelfth century;<sup>652</sup>

#### The hypothesis of two Vāgbhaṭas

Several arguments have been adduced in support of the thesis that two Vāgbhaṭas have to be distinguished. It will be useful to survey the most important ones.

The unreliability of the colophons of the *Hṛdaya* makes them unsuitable to prove

that it was written by the same author as the *Samgraha*.<sup>653</sup> This argument is to be accepted.

The absence of the name of the author in the *Hṛdaya* is regarded as pointing to an author who is not the same as the one who composed the *Samgraha*.<sup>654</sup> This argument, rather often waved aside by unconvincing lines of reasoning, is, in my view, reasonable and should be considered seriously.

The references to and quotations from Vṛddhavāgbhāṭa and Vāgbhāṭa are thought to demonstrate that two different authors are meant.<sup>655</sup> The distinction of a Vṛddhavāgbhāṭa, next to a Vāgbhāṭa, adopted by a number of commentators, does not prove in itself that two different authors are meant. Earlier commentators usually assume that the authors of *Samgraha* and *Hṛdaya* are identical.<sup>656</sup>

The differences in style, namely that the *Samgraha* is in prose and verse, while the *Hṛdaya* is exclusively in verse, are considered to support the hypothesis of two authors.<sup>657</sup> This argument certainly has some weight, but can hardly be decisive.

The author of the *Hṛdaya* is seen as more skilled in writing verse than the author of the *Samgraha*.<sup>658</sup> This argument loses its force when closer study reveals that the verses found in the *Samgraha* are not less skilled than those of the *Hṛdaya*, only less in number.

The paucity of Buddhist features in the *Hṛdaya* is invoked as proving that a different author has been at work. Those features which are still present are interpreted as resulting from the fact that the *Samgraha* was the basis for the composition of the *Hṛdaya*.<sup>659</sup> Though the Buddhist features are generally less in number in the *Hṛdaya*, which may be regarded as supporting the argument, the same work also adds some which are absent from the *Samgraha*, which weakens it.

The *Hṛdaya* is said to show more respect for the Hindu dharma than the *Samgraha*.<sup>660</sup> As long as no serious comparative study of both works with its focus on this aspect has been made, the claim must be regarded as unfounded.

One of the few Indian scholars who studied part of the differences between *Samgraha* and *Hṛdaya* more accurately and reliably in order to establish that two Vāgbhāṭas have to be distinguished was Jyotiṣacandra Sarasvatī. This author examined a number of passages from the Śātrasthānas of *Samgraha* and *Hṛdaya*.

The age a male should have in order to beget a healthy child is twenty-five in the *Samgraha* (Śā.1.3), twenty in the *Hṛdaya* (Śā.1.8–9a). The female should be sixteen years of age. The *Hṛdaya* is, as a text more in agreement with orthodox views, regarded as later than the *Samgraha*. This difference between the two texts has also been discussed by Hilgenberg and Kirfel, as well as by H. Parāḍkar, who are not led by it to assume two different authors.<sup>661</sup> The *Aṣṭāṅgasamgraha* is sometimes (see, for example, Śā.3.37) in agreement with the *Carakasaṃhitā* (compare Ca.Śā.8.48), whereas the corresponding verse of the *Hṛdaya* (Śā.1.94) agrees with the *Suśrutasaṃhitā* (compare Su.Śā.10.16–17). The *Hṛdaya* (Śā.3.12) mentions the *ḍimbha* as one of the viscera (*koṣṭhāṅga*), whereas the *Samgraha* (Śā.5.28) does not employ this anatomical term in the corresponding passage. The *Samgraha* (Śā.5.48) accepts a number of 2,000 sandhis; the *Hṛdaya* (Śā.3.16cd–17ab) states that their number is 210 according to Dhanvantari, but 2,000 according to Atrinandana (i.e., the Ātreya Punar-

vasu of the *Carakasamhitā*). The system of sirās shows some differences (compare A.s.Śā.6.8 and A.h.Śā.3.38b). The nature of the transforming fire is discussed in both texts (A.s.Śā.6.23; A.h.Śā.3.49); two disagreeing opinions are referred to; the second opinion, ascribed to Ātreya in the *Hṛdaya*, appears to be rejected in the *Samgraha*. The *Samgraha* (Śā.7.14) acknowledges eleven māṃsamarmans, forty-one sirāmarmans, twenty-seven snāvamarmans, eight asthimarmans, twenty sandhimarmans; the *Hṛdaya* (Śā.4.40–44), on the other hand, acknowledges ten māṃsamarmans, thirty-seven sirāmarmans, nine dhamanīmarmans, twenty-three snāvamarmans, eight asthimarmans, twenty sandhimarmans. The *Samgraha* (Śā.7.13–14) distinguishes five types of marman, the *Hṛdaya* (Śā.4.39) adds a sixth type, connected with the dhamanī; <sup>662</sup> the *Hṛdaya* (Śā.4.45cd–46) adds that others do not acknowledge this extra group, consisting of the guda (a māṃsamarman in the *Samgraha*), the two apastambhas (sirāmarmans in the *Samgraha*), the two vidhuras (snāvamarmans in the *Samgraha*), and the four śṛṅgātakas (sirāmarmans in the *Samgraha*) (A.h.Śā.4.42a–c); accordingly, the *Samgraha* (Śā.7.10) refers to the śṛṅgātaka as a sirāmarmman in another passage; the corresponding verse of the *Hṛdaya* (Śā.4.34) does not mention the type of marman involved. The *Samgraha* (Ka.8.27) requires the quantity of fresh, moist drugs and of liquids to be double the quantity of dried drugs; the *Hṛdaya* (Ka.6.23ab) says the same, but specifies that the rule for liquids applies only to quantities of a kuḍava and more; the *Samgraha* follows Caraka (Ka.12.98cd) and Suśruta (Ci.31.7), whereas the *Hṛdaya* adheres to the rule of Jatūkarna and that of another unnamed authority, both quoted by Cakrapāṇidatta. <sup>663</sup>

A few examples of differences between *Samgraha* and *Hṛdaya* not discussed by Jyotiṣacandra Sarasvatī may be useful.

The *Samgraha* stresses the role of the woman in determining desirable characteristics of the child to be born and agrees with Caraka, whereas the *Hṛdaya* is in conformity with Suśruta in giving this power to both parents. <sup>664</sup>

The *Samgraha* says that the longings of pregnancy arise in the third month; it adds that according to a disagreeing view they become manifest after six weeks and continue until the fifth month (Śā.2.10–11). <sup>665</sup> The *Hṛdaya* states that the longings begin in the second month (Śā.1.52). The *Samgraha* is in conformity with the *Carakasamhitā* which opts for the third month (Śā.4.15); the *Suśrutasaṃhitā* declares that the longings become manifest in the fourth month.

The *Samgraha* states that the skin consists of six layers (Śā.5.16–17), which agrees with Caraka. The diverging theory of Suśruta who distinguishes seven layers is expounded next (Śā.5.18), without referring to him by name and without taking sides. On the other hand, the *Hṛdaya* acknowledges the seven layers of Suśruta (Śā.3.8d).

The *Samgraha* regards ojas as the essence (sāra) of śukra, which, due to its very pure nature, has no waste product (mala) resulting from this transformation; other authorities declare that ojas is not subject to pāka; others again state that the embryo (garbha) constitutes the essence of śukra (Śā.6.29). The *Hṛdaya*, on the other hand, adopts the theory that the embryo arises from śukra and does not mention ojas in the same context (Śā.3.63ab).

Some more differences noticed by Jyotiṣacandra Sarasvatī have to be discussed too.

The author of the *Samgraha* is said to make more changes in the text of the *Carakasamhitā* and *Suśrutasamhitā* than the author of the *Hṛdaya*.<sup>666</sup> Nādisveda is absent in the *Hṛdaya*, while the *Samgraha* (U.22.3, 13, 20) mentions it. The *Hṛdaya* omits many kalpas of the *Samgraha* and explicitly mentions this fact (A.h.U.39.177). The *palāṇḍukalpa*, for example, which refers to the Śakas, is absent.

The *Samgraha* presents itself as entirely based on the accepted tradition.<sup>667</sup> The *Hṛdaya*, in contrast to this, regards style (*subhāṣitatva*) as more important than the authority of ancient sages (*munipraṇītata*) (U.40.88). This argument cannot be accepted as conclusive, because the author of the *Hṛdaya* also declares that his work follows the teachings of the great sages (*mahāmunitātānuga*), who possess a wide knowledge without blemishes (*vipulāmalavijñāna*) (U.40.79).

The expression *saṁgrahabodhaśakta*, found towards the end of the *Hṛdaya* (U.40.83), and sometimes thought to refer to the *Samgraha*,<sup>668</sup> cannot do so actually, because of the differences in opinion between the two works. Jyotiṣacandra Sarasvatī's reason to wave this verse aside is open to discussion. However, the stanza is unconvincing for other reasons when regarded as hinting at the *Samgraha*. It says that a physician able to study and grasp the contents of the summary (*saṁgrahabodhaśakta*) (of medical science represented by the *Hṛdaya*) will be able to make totter (*ākampayati*) colleagues who practice according to other large treatises (*anyaviśālatantraḥ*) (*tābhiyoga*).

Jyotiṣacandra Sarasvatī is convinced that a verse towards the end of the *Hṛdaya* (U.40.80), where, according to many scholars,<sup>669</sup> the *Samgraha* is mentioned as the work on which the *Hṛdaya* is based, proves that it derives from a different author. This verse says that the *Hṛdaya* has arisen, as a quite separate treatise (*prthag eva tantra*), from the great mass of *amṛta* constituted by the *Aṣṭāṅgasamgraha*, or, alternatively, by the summary of the eight branches (of the medical science) (*aṣṭāṅgasamgrahamahāmṛtarāśi*), which, in its turn, resulted from the churning of the ocean of the eightfold medical science (*aṣṭāṅgavaidyakamahodadhimanthana*). Obviously, this verse may refer to the *Aṣṭāṅgasamgraha*. If it does, the *Hṛdaya* is later and may be by an author distinct from the one who composed the *Samgraha*.

The features highlighted so far show that *Samgraha* and *Hṛdaya* can hardly be imagined to be works of one and the same author.

### Special features of the *Samgraha*<sup>670</sup>

The number of chapters is one hundred, without considering the fifty chapters of the *Uttarasthāna*.<sup>671</sup> The addition of three characteristics (*lakṣaṇa*) of a season: *māsa*, *rāśi* and *svarūpa* (A.s.Sū.4.63cd).<sup>672</sup> Rules for drinking water (A.s.Sū.6.27cd–28, 32–33, 35, 38–39, 43).<sup>673</sup> The properties and actions of milk, as dependent on the food, etc., of the animal yielding it (A.s.Sū.6.60–61).<sup>674</sup> Additional types of sugar, made from the leaves of *kāṣa*, *iṣu* (= *śara*) and *darbha* (A.s.Sū.6.84cd).<sup>675</sup> *Drākṣāsava* (A.s.Sū.6.126ab) may be mentioned for the first time.<sup>676</sup> The properties and actions of the dung of various animals (A.s.Sū.6.139cd–141).<sup>677</sup> New prepared foods<sup>678</sup> are *dakalāvaṇika*,<sup>679</sup> *ghārikā*,<sup>680</sup> *iṇḍarikā*,<sup>681</sup> and *valla*.<sup>682</sup> A very small quantity of a poisonous substance acts like *amṛta* (A.s.Sū.7.211cd).<sup>683</sup> Particular medicinal

substances which cause or cure particular disorders have an opposite effect in combination with other drugs (A.s.Sū.7.215).<sup>684</sup> Examples of changes in the properties of medicinal substances, dependent on their way of preparation (A.s.Sū.7.219–222, 225) and application (A.s.Sū.6.227).<sup>685</sup> The vessel in which a drug is kept influences its properties (A.s.Sū.6.226cd).<sup>686</sup> Exceptions to general rules regarding the treatment of particular disorders (A.s.Sū.6.246ab, 249ab, 250ab).<sup>687</sup> The description of sarvā-rthasiddhāñjana (A.s.Sū.8.58–59).<sup>688</sup> Foods are digested within four, drugs within two yāma in someone with a balanced digestive fire (samāgni) (A.s.Sū.11.37).<sup>689</sup> Seven pañcamūla groups are distinguished; <sup>690</sup> the vallī- and kaṇṭakapañcamūla groups (A.s.Sū.12.54cd–55ab), borrowed from Suśruta,<sup>691</sup> are absent from the *Hṛdaya*. The best hiṅgu is said to come from the country called Boṣkāṇa (A.s.Sū.12.58cd–59).<sup>692</sup> The group of three balās is mentioned (A.s.Sū.12.75ab).<sup>693</sup> The chapter on the best (agrya) remedial measures and drugs among particular groups with a specific action,<sup>694</sup> largely borrowed from Caraka, enumerates a number of new items: tinduka as the best annadravyārūcika drug;<sup>695</sup> vṛṣa against raktapitta, kaṇṭakārikā against kāsa, lākṣā against sadyalīkṣata, nāgabalā against kṣatakṣaya, aruṣkara (= bhallātaka) and citraka against śuṣkārśas, kuṭaja against raktārśas, lājā against chardi, haridrā against prameha, eraṇḍataila against vardhma, gulma and vātaśūla, laṣuna against gulma and among vātahāra drugs, ayorajas against pāṇḍuroga, guggulu against medoroga and among vātahāra drugs, triphalā against timira (A.s.Sū.13.2); several items of Caraka's list are omitted in the *Samgraha* and the order of the items differs at many places.<sup>696</sup> The list of drugs which are useful in emetic procedures (A.s.Sū.14.2), absent from the *Hṛdaya*, is much longer than the corresponding ones of Caraka ((Sū.2.7–8 and 4.13) and Suśruta (Sū.39.3). New groups of drugs are those called prāyogika-, snaihiika- and tīkṣṇadhūmopayogin (A.s.Sū.14.6). New items are the ānūpa- and jāṅgalasādhāraṇa types of country (Sū.18.29).<sup>697</sup> A new relationship between the dhātus and malas with regard to the doṣas;<sup>698</sup> vāta is said to stay in the bones, pitta in blood and sweat, kapha in the remaining dhātus (A.s.Sū.19.8); accordingly, increase of rasa is accompanied by kapha disorders and increase of blood by pitta disorders, but increase of muscular tissue by disorders caused by kapha and blood, and increase of fatty tissue by disorders caused by kapha, blood and muscular tissue, which disagrees (A.s.Sū.19.4). An elaborate classification of diseases is present (A.s.Sū.22).<sup>699</sup> The roles of perception (pratyakṣa) and inference (anumāna) in the examination of a patient are elaborately discussed (A.s.Sū.22.11).<sup>700</sup> The number of yantras is said to be indeterminable (A.s.Sū.34.2); the divergent opinion that their number is 101 (Sū.34.3), which is found in the *Suśrutasaṃhitā* (Sū.7.3), is obviously rejected.<sup>701</sup> Three types of arśoyantra are described (A.s.Sū.34.10); additional yantras are the yonivraṇādarśanayantra (34.12), nāḍīvraṇāprakṣālanayantra (34.12) and abhyañjanayantra (34.12).<sup>702</sup> Śāstrakarman is of twelve kinds (A.s.Sū.34.22), while it is of eight kinds in Suśruta (Sū.8.4); added are: pātana, pracchāna, kuṭṭana and mathana. Sūryakānta and samudraphena are added to the anuśāstras (A.s.Sū.34.31).<sup>703</sup> Dissection, absent from the *Hṛdaya*, is described in the chapter on surgical instruments (A.s.Sū.34.38), not in the *Śārīrasthāna*, as in the *Suśrutasaṃhitā*.<sup>704</sup> New fevers described are those called hāridraka, rātrika and pūrvarātrika (A.s.Ni.2.97cd–100ab).<sup>705</sup>

New prescriptions are: parpaṭa in pittajvara (A.s.Ci.1.75);<sup>706</sup> ground (ślakṣṇapiṣṭa) kaṭukā with sugar (A.s.Ci.1.76cd);<sup>707</sup> the svarasa of the flowers and leaves of vṛṣa, together with sugar and honey, in a fever by pitta and kapha (A.s.Ci.1.92cd);<sup>708</sup> the preparation called candrakānta, to be employed in rājayakṣman (A.s.Ci.7.13–15ab);<sup>709</sup> bilvataila (A.s.U.22.30) in ear diseases;<sup>710</sup> khadirādiguṭikā in all mukharogas (A.s.U.26.54);<sup>711</sup> madayantikā leaves in mukhapāka due to pitta (A.s.U.26.57);<sup>712</sup> the roots of nala ground in water, employed as a pāna or a lepa in cases of alarkaviṣa (A.s.U.46.66);<sup>713</sup> chewed leaves of mātuluṅga, tied to the wound, in alarkaviṣa (A.s.U.46.66);<sup>714</sup> fruits of dhattūra, roots of dhattūra and kākodumbarikā, together with sīdhu or taṇḍulāmbu, in alarkaviṣa (A.s.U.46.69); crushed leaves, bark and roots of jalavetasa, boiled in water, in alarkaviṣa (A.s.U.46.72).<sup>716</sup>

The requirements for a suitable playground for children (krīḍābhūmi) are enumerated (A.s.U.1.75–76).<sup>717</sup> A ritual (ṣaṣṭhīpūjā) to be performed in the sixth night after birth is described (A.s.U.1.28).<sup>718</sup> A number of alternatives are given for the date of the name-giving ceremony (nāmakaraṇa) (A.s.U.1.29–30). Methods are described which are helpful in weaning (A.s.U.1.67). The eating of earth by children is mentioned and the disorders arising from this habit are enumerated (A.s.U.1.101cd–102).<sup>719</sup> New children's diseases described are pārīgarbhika and parvānupla (A.s.U.2.97–114).<sup>720</sup> The formula of śairīṣataila (A.s.U.10.27–37) is new. The exposition on agadatantra covers many chapters (A.s.U.40–48);<sup>721</sup> the viṣopayogīya chapter (A.s.U.48) is new.<sup>722</sup> The symptoms of poisoning by haritāla (A.s.U.40.141)<sup>723</sup> and by dhattūra are described (A.s.U.40.144: ghurghūraka).<sup>724</sup> Many new kalpas are present in the rasāyana chapter (A.s.U.49).<sup>725</sup> The *Samgraha* may be the first medical treatise to extend the use of musk.<sup>726</sup> Excessive use of a guggulu rasāyana is said to cause klībatā (A.s.U.49.280).<sup>727</sup> The formula of śivā guṭikā (A.s.U.49.309–325) is new.<sup>728</sup> Pādalepa is described in the vājīkaraṇa chapter (A.s.U.50.106).<sup>729</sup> Thirty-six tantrayuktis are mentioned (A.s.U.50.148–153).<sup>730</sup>

Unusual names of plants are: ahicchattrā ((U.40.70),<sup>731</sup> ajahā ((A.s.U.50.91),<sup>732</sup> ajjhaṭā (A.s.Ci.2.16),<sup>733</sup> ākhuvṛkṣa (U.46.42),<sup>734</sup> āryabṛhaṭī (A.s.U.40.93),<sup>735</sup> avyaṇḍā (A.s.U.1.99),<sup>736</sup> bhañjī (Sū.8.20),<sup>737</sup> bhogavatī (A.s.U.40.88),<sup>738</sup> dadhi (U.8.23),<sup>739</sup> gālā (A.s.U.1.8),<sup>740</sup> ikṣupālikā (A.s.Ka.4.32),<sup>741</sup> jharasī (A.s.Ci.17.29),<sup>742</sup> kolaṅkātaka (A.s.Ka.4.32),<sup>743</sup> mahālāṅgalakī (A.s.U.28.31),<sup>744</sup> mahīśākṛāntā (U.44.44 and 46),<sup>745</sup> maṇḍalaparnikā (U.44.48),<sup>746</sup> mañjarī (A.s.Sū.16.16; U.40.89),<sup>747</sup> pāṣikā (A.s.U.6.51),<sup>748</sup> pāvakī (A.s.U.40.88),<sup>749</sup> pūtanā (U.9.31),<sup>750</sup> rāmataruṇī (A.s.U.28.47),<sup>751</sup> siṃphalomī (A.s.U.40.72),<sup>752</sup> siṃhapucchī (U.44.48),<sup>753</sup> siṃphaskandī (A.s.U.2.76),<sup>754</sup> siṃphavallī (A.s.U.2.76),<sup>755</sup> sphūrjāta (A.s.Ci.1.78),<sup>756</sup> sphūrjātaka (A.s.Ci.23.17),<sup>757</sup> sprṣṭarodikā (A.s.U.2.51),<sup>758</sup> surālā (A.s.U.40.88),<sup>759</sup> suvahā (U.44.43),<sup>760</sup> śvetapiṇḍā (U.43.56),<sup>761</sup> vāruṇapuṣpā (U.45.17),<sup>762</sup> vāruṇī (U.45.35),<sup>763</sup> and vetālī (A.s.U.40.176).<sup>764</sup>

### Special features of the Hṛdaya

The number of chapters is 120, in agreement with that of other saṃhitās.<sup>765</sup> Residence in heated rooms (aṅgārātāpasamṭaptagarbhābhūveśmacaraṇa) is recommended in

winter (A.h.Sū.3.16); new material is found in the descriptions of summer and autumn (A.h.Sū.3).<sup>766</sup> Noteworthy quotations from the *Carakasamhitā* are present in A.h.Sū.4.<sup>767</sup> Many fluid substances of the *Samgraha* are absent in the chapter (A.h.Sū.6) dealing with them.<sup>768</sup> New substances in the dravyaprakaraṇa are ārdrikā (A.h.Sū.6.109ab) and gr̥ṇjanaka (A.h.Sū.6.113ab).<sup>769</sup> Uddāla(ka) (A.s.Sū.7.13, 17), madhūlikā (A.s.Sū.7.14, 17), kuśāmrāśimbī (A.s.Sū.7.31),<sup>770</sup> makuṣṭha(ka) (A.s.Sū.7.22, 25), and masūra (A.s.Sū.7.22, 25) are absent; the same applies to rāgaśāḍava (A.s.Sū.7.53), mantha (A.s.Sū.7.54), śaṣkulī (A.s.Sū.7.60), modaka (A.s.Sū.7.60), saktubhojanavidhi (A.s.Sū.7.60ab), karkandhubadarādisaktu (A.s.Sū.7.62), ghārikā (A.s.U.49.220), and iṇḍarikā (A.s.U.49.220) among the prepared dishes; the properties of the flesh of haṃsa (A.s.Sū.7.98ab) and kulīra (A.s.Sū.7.100cd) are absent; the śyāmādigāṇa (A.s.Sū.7.122–123) is absent from the śākavarga, etc. (A.h.Sū.6).<sup>771</sup> The two pañcamūla groups called vallī- and kaṇṭakapañcamūla (A.s.Sū.12.54cd–55) are absent.<sup>772</sup> The uses of bisa, ikṣu, moca, coca, āmra, modaka, utkārikā, etc., are described (A.h.Sū.8.45).<sup>773</sup> A smaller number of anupānās are described (A.h.Sū.8.47cd–52) than in the *Samgraha* (Sū.10.11).<sup>774</sup> The definition of vipāka (A.h.Sū.9.20) is remarkable.<sup>775</sup> Specific actions (viśiṣṭakarmaṇ) of the dhātus and malas are described (A.h.Sū.1.1).<sup>776</sup> Blood is not regarded as a doṣa.<sup>777</sup> Seven sadyaḥśnehana substances are mentioned (A.h.Sū.16.40cd–42), which are absent from the *Samgraha*.<sup>778</sup> Four types of sveda are distinguished (A.h.Sū.17.1).<sup>779</sup> Substances suitable to be smoked are mentioned (A.h.Sū.21.13–18).<sup>780</sup> The types of añjana are three instead of four in number (A.h.Sū.23.10).<sup>781</sup> The chapter on blunt instruments mentions a śalyanirghātinī nādī (A.h.Sū.25.15cd–16ab) and an aśmaryāharaṇayāntra (A.h.Sū.25.33ab).<sup>782</sup> Five instead of three types of śalyagatī are distinguished (A.h.Sū.28.1).<sup>783</sup> Dissection is absent.<sup>784</sup> The description of the ojas problem in the eighth month of pregnancy (A.h.Sā.1.62cd–63) differs from that in the *Samgraha*.<sup>785</sup> A metal figure of a male is described, to be heated and put into milk, which, afterwards, should be drunk by a pregnant woman with a view to increase the chance that a son will be born (A.h.Sā.1.38cd–39ab).<sup>786</sup> Two types of mūḍhagarbha, called viṣkambha, require surgical intervention (A.h.Sā.2.29–31ab).<sup>787</sup> A dhamaṇīṣṭha type of marman is acknowledged (A.h.Sā.4).<sup>788</sup> The śālākābhramaṇadoṣas (A.h.U.17.24) are new. The undesirable effects of couching (A.h.U.17.25–27) are new. New recipes are: sūraṇaputaṇpāka against arśas (A.h.Ci.8.156),<sup>789</sup> dāḍimāṣṭakacūrṇa against atisāra (A.h.Ci.9.113cd–115),<sup>790</sup> ayaskṛti against prameha (A.h.Ci.12.29–32),<sup>791</sup> a rāgaśāḍava with kapittha, jambū and tinduka against prameha (A.h.Ci.12.12cd),<sup>792</sup> ayaskṛti against udara (A.h.Ci.15.74),<sup>793</sup> lauhacūrṇa steeped in cow's urine against pāṇḍuroga,<sup>794</sup> maṇḍūravaṭaka against pāṇḍuroga (A.h.Ci.16. ).<sup>795</sup> The dosages of medicines (auśadhamātrā) are discussed (A.h.Ka.6.11cd–14).<sup>796</sup> New prescriptions against timira are collyria containing sulphur and mercury (A.h.U.13.31cd–33ab and 36).<sup>797</sup> Many inorganic substances are employed against eye diseases.<sup>798</sup> Treatment by means of a tailadronī is described as suitable to patients with sadyovraṇa (A.h.U.26.57–58).<sup>799</sup> The śāntikarmaṇ called candrodaya is described (A.h.U.35.24–32);<sup>800</sup> this ritual employs a mantra addressed to Puruṣasimha and Nārāyaṇa.<sup>801</sup> Treatment of a snake-bite by means of sucking through a horn is described (A.h.U.36.50cd).<sup>802</sup>



The chapter on rasāyana describes the uses of gokṣura (A.h.U.39.56–57), vārāhikanda (A.h.U.39.58–59), ṣuṇṭhī, and citraka (A.h.U.39.62–65).<sup>803</sup> The vājīkaraṇa chapter prescribes uccaṭā (A.h.U.40.32).<sup>804</sup> The list of best drugs against particular disorders mentions: mustā and parpaṭaka against fever, lājā against chardi, giriṇa (= śilājatu) against bastiroga, dhātrī (= āmalakī) against meha, abhayā (= haritakī) against disorders caused by vāta and kapha, pippalī against plihāmaya (A.h.U.40.48), tārṣya (= rasāñjana) against sthauḷya, guḍūci against vātarakta (A.h.U.40.50).<sup>805</sup>

Names of vegetable drugs absent from *Carakasamhitā* and *Suśrutasaṃhitā* are:<sup>806</sup> adrikarṇī (A.h.U.5.20),<sup>807</sup> ahikeśara (A.h.Ci.7.106),<sup>808</sup> ahimāra (A.h.U.22.82, 88),<sup>809</sup> ahimāraka (A.h.U.22.107),<sup>810</sup> aileya (A.h.U.11.24),<sup>811</sup> aileyaka (A.h.U.16.24),<sup>812</sup> ākhukarṇī (A.h.Ci.20.29),<sup>813</sup> akṣibhaiṣajya (A.h.Ci.9.23),<sup>814</sup> amarā (A.h.U.5.20),<sup>815</sup> amarataru (A.h.U.24.29),<sup>816</sup> amla (A.h.Ci.1.134),<sup>817</sup> amlavidula (A.h.Ci.8.149),<sup>818</sup> anuyava (A.h.Sū.6.15),<sup>819</sup> araṇika (A.h.Sū.15.24; Ci.14.117),<sup>820</sup> āraṇyakulattha (A.h.U.16.6),<sup>821</sup> ārdrikā (A.h.Sū.6.109; Ci.7.15; 8.82),<sup>822</sup> asitaṇṇiraka (A.h.Ci.14.17), asitasaroja (A.h.Ci.7.85),<sup>823</sup> aśvaghna (A.h.Ci.8.23; U.18.57; 24.24),<sup>824</sup> auśadha (A.h.Ci.5.55; 6.33; 10.70),<sup>825</sup> āvartakī (A.h.Ci.19.22),<sup>826</sup> bahalapallava (A.h.Sū.15.21),<sup>827</sup> bahurasa (A.h.Sū.15.45),<sup>828</sup> bālapattra (A.h.U.39.105),<sup>829</sup> barbara (A.h.U.3.59),<sup>830</sup> barhiśikhā (A.h.Ci.11.34),<sup>831</sup> bāṣṭikā (A.h.Sū.7.25; Ci.4.32),<sup>832</sup> bastāntrī (A.h.Sū.15.45),<sup>833</sup> bhadraīlā (A.h.U.6.26),<sup>834</sup> bhūkadamba (A.h.Ci.12.20; U.22.22),<sup>835</sup> bījāhva (A.h.Ci.6.33 and 34),<sup>836</sup> botasthavira (A.h.Ci.3.135),<sup>837</sup> brahmasomā (A.h.U.1.44),<sup>838</sup> candralekhā (A.h.Ci.3.135),<sup>839</sup> candraśakalā (A.h.Ci.19.44),<sup>840</sup> capalā (A.h.Ci.4.24; 8.149; Ka.4.64; U.16.40),<sup>841</sup> cetakī (A.h.U.30.39),<sup>842</sup> chāgakarṇa (A.h.Sū.15.19),<sup>843</sup> chinnoḍbhavā (A.h.Ci.1.60),<sup>844</sup> cīnāka (A.h.Sū.6.87),<sup>845</sup> dahana (A.h.Sū.15.1 and 21; Ci.8.154),<sup>846</sup> devadhūpa (A.h.Sū.15.43; U.22.3),<sup>847</sup> devāhva (A.h.Sū.15.35; Ci.1.62; 12.2; Ka.5.19; U.2.25; 3.56),<sup>848</sup> devāhvaya (A.h.Sū.15.9),<sup>849</sup> dhānakā (A.h.Sū.15.16; Ci.8.73; 9.104; 17.11),<sup>850</sup> dhanikā (A.h.Ci.8.50, 77, 82; 9.26),<sup>851</sup> dhātūra (A.h.U.24.30; 38.37), droṇā (A.h.U.36.92),<sup>852</sup> dugdhinikā (A.h.U.37.86),<sup>853</sup> dvīpi (A.h.Sū.15.32; Ci.14.82; 19.41 and 45; 20.16; 21.57; U.22.56 and 81; 30.27),<sup>854</sup> gada (A.h.U.5.20; 20.15),<sup>855</sup> gadā (A.h.U.32.31),<sup>856</sup> gajacirbhaṭa (A.h.Ci.14.38),<sup>857</sup> gajadantikā (A.h.U.36.61),<sup>858</sup> gajakāṇā (A.h.Ci.8.50),<sup>859</sup> gajakṛṣṇā (A.h.U.22.66),<sup>860</sup> gajopakulyā (A.h.Ci.21.59),<sup>861</sup> gāla (A.h.Ci.6; 20.20),<sup>862</sup> gandhapalāśa (A.h.Ci.10.46; 14.14; 17.24),<sup>863</sup> gāṅgeyī (A.h.Ci.1.54; Ka.4.44),<sup>864</sup> gataśoka (A.h.Sū.15.26),<sup>865</sup> ghoṣā (A.h.U.13.55; 16.7),<sup>866</sup> ghuṇapriyā (A.h.Sū.15.33; Ci.9.57; 16.11),<sup>867</sup> ghuṇavallabhā (A.h.Ci.8.103 and 151),<sup>868</sup> ghuṇeṣṭā (A.h.Ci.19.40),<sup>869</sup> gokantaka (A.h.Sū.1.524; Ci.1.114; 2.38; 8.12),<sup>870</sup> gopakanyā (A.h.Ci.2.28; U.37.82),<sup>871</sup> gopāṅganā (A.h.Ka.4.12),<sup>872</sup> gopasutā (A.h.Sū.15.9),<sup>873</sup> guḍamañjarī (A.h.U.40.52),<sup>874</sup> guṇṭha (A.h.Sū.15.24; Ci.11.19 and 22),<sup>875</sup> halinī (A.h.Ci.8.22),<sup>876</sup> ibhapippalī (A.h.Ci.14.18),<sup>877</sup> indulekhā (A.h.U.1.43),<sup>878</sup> indurājī (A.h.Ci.19.26), indurājikā (A.h.Ci.20.6),<sup>879</sup> jalada (A.h.Sū.3.23; 15.35; 20.37; Ci.2.18 and 31),<sup>880</sup> jantughna (A.h.Ci.3.10; 4.29; 19.47 and 79; U.22.63),<sup>881</sup> jantuhṛt (A.h.Ci.8, first additional verse after 15),<sup>882</sup> jātipattrikā (A.h.U.22.93),<sup>883</sup> jātirasa (A.h.Sū.15.43),<sup>884</sup> jayamṭī (A.h.Ci.17.26),<sup>885</sup> jhūñjhu (A.h.Sū.6.94),<sup>886</sup> jīvanta (A.h.Sū.6.94),<sup>887</sup> jyotiś (A.h.Ci.8.34),<sup>888</sup> kacchaka (A.h.Ci.11.18),<sup>889</sup> kākatiktā (A.h.Sū.15.17),<sup>890</sup> kākamālikā (A.h.U.35.25),<sup>891</sup> kākāṇḍakī (A.h.U.24.35),<sup>892</sup> kālamuṣkaka (A.h.Sū.

30.8),<sup>893</sup> kali (A.h.Ci.18.25; U.28.38),<sup>894</sup> kāliṅga (A.h.Sū.6.87 and 89),<sup>895</sup> kalodya (A.h.Sū.6.92),<sup>896</sup> kāmāttā (A.h.Sū.7.36),<sup>897</sup> kaṇādvaya (A.h.Ci.19.8),<sup>898</sup> kaṇāmūla (A.h.U.37.83),<sup>899</sup> kaṇḍūkarī (A.h.Sū.15.9),<sup>900</sup> kāntā (A.h.Śā.2.4; U.22.12, 86),<sup>901</sup> kārmukā (A.h.Sū.15.30),<sup>902</sup> kāsaghna (A.h.Ci.3.23 and 49; 4.20),<sup>903</sup> kāsmīraja (A.h.U.37.44),<sup>904</sup> kattrṇa (A.h.U.3.45),<sup>905</sup> kaṭu (A.h.U.5.20),<sup>906</sup> kaṭukadaugdhika (A.h.U.37.79),<sup>907</sup> kaṭukāphala (A.h.Sū.29.35),<sup>908</sup> khapura (A.h.Sū.15.43; U.40.52),<sup>909</sup> kharabusa (A.h.Sū.15.30),<sup>910</sup> kolī (A.h.Sū.15.41),<sup>911</sup> kopanā (A.h.Ci.21.68),<sup>912</sup> ko-  
raṇṭa (A.h.U.24.35),<sup>913</sup> kṛṣṇapātālī (U.5.42),<sup>914</sup> kṣaudrasāhvayā (A.h.U.35.21),<sup>915</sup> kṣīrī (A.h.Ci.5.33),<sup>916</sup> kṣīripādapa (A.h.U.3.46),<sup>917</sup> kṣudrā (A.h.U.22.97),<sup>918</sup> kṣudra-  
vārtāka (A.h.U.24.30),<sup>919</sup> kṣuraka (A.h.Ci.15.95),<sup>920</sup> kumbha (A.h.Sū.15.2; Ci.8.151;  
13.6; 14.18 and 36; 15.10 and 105; 16.43; 17.3; 19.19 and 31; Ka.2.48; U.7.21;  
13.69; 20.24; 28.34),<sup>921</sup> kumbhayoni (A.h.U.13.90),<sup>922</sup> kusumāṇḍaka (A.h.Sū.6.  
2),<sup>923</sup> kuṭila (A.h.U.24.8),<sup>924</sup> kuṭilī (A.h.Sū.6.76),<sup>925</sup> kuṭijāra (A.h.Sū.6.93),<sup>926</sup>  
kutsitāmba (A.h.Sū.15.26),<sup>927</sup> laghupatrā cillī (A.h.Sū.6.96),<sup>928</sup> latvā (A.h.Ci.11.  
7; U.22.65),<sup>929</sup> latvāka (A.h.Sū.6.93);<sup>930</sup> madā (A.h.Ci.8.149),<sup>931</sup> madanīyahetu  
(A.h.Sū.15.37),<sup>932</sup> mādhavī (A.h.Sū.3.34),<sup>933</sup> madhuphalā (A.h.Ci.8.149),<sup>934</sup> ma-  
dhusrava (A.h.Sū.15.15),<sup>935</sup> mādri (A.h.Ci.6.52; 8.149; 9.7; 10.53; 12.18; 15.71;  
17.26; U.2.24; 20.15),<sup>936</sup> mahādronā (A.h.U.36.92),<sup>937</sup> mahadvyāghrī (A.h.Sū.10.  
30),<sup>938</sup> mahāpicumanda (A.h.Ci.8.161),<sup>939</sup> mahiṣkṣa (A.h.U.28.42),<sup>940</sup> mānadruma  
(A.h.Sū.15.37),<sup>941</sup> mānasī (A.h.U.36.92),<sup>942</sup> mārsa (A.h.Sū.6.93),<sup>943</sup> meṣaviṣāṇī  
(A.h.U.14.31),<sup>944</sup> muṣālī (A.h.U.32.21),<sup>945</sup> nāgāhva (Sū.15.14; Ka.4.14),<sup>946</sup> nāgāhva-  
ya (Sū.15.43),<sup>947</sup> nāgakusuma (A.h.Ci.5.54),<sup>948</sup> nāgapurīṣacchattra (A.h.U.37.42),<sup>949</sup>  
nahikā (A.h.U.30.18),<sup>950</sup> naktāhva (A.h.U.25.67),<sup>951</sup> namaskarī (A.h.Sū.15.38),<sup>952</sup>  
nayanāsadha (A.h.Ci.11.59),<sup>953</sup> nirmālya (A.h.U.5.18),<sup>954</sup> nṛpadruma (A.h.Ci.1.121;  
5.3; 12.42; U.3.44; 6.24),<sup>955</sup> nṛpataru (A.h.Ci.19.37),<sup>956</sup> nṛtyakuṇḍaka (A.h.Ci.11.  
30),<sup>957</sup> pālani (A.h.Ci.1.90),<sup>958</sup> pālanikā (A.h.Ci.1.92),<sup>959</sup> pālevata (A.h.Sū.6.135;  
10.26),<sup>960</sup> paṅkaja (A.h.U.39.104),<sup>961</sup> pārthā (A.h.Sū.15.24),<sup>962</sup> paṣugandhā (A.h.Sū.  
15.34; Ci.14.31),<sup>963</sup> pītāṅgī (A.h.U.22.98),<sup>964</sup> pītatailā (A.h.Sū.15.28),<sup>965</sup> prāṇadā  
(A.h.Ci.1.153; 9.5 and 104; 13.17),<sup>966</sup> prapuṇḍrāhva (A.h.U.18.47),<sup>967</sup> priyāhvā  
(A.h.U.5.19),<sup>968</sup> puṇḍra (A.h.Sū.15.12; U.11.49; 16.15; 22.37),<sup>969</sup> puṇḍrāhva (A.h.  
Sū.22.21; U.13.5; 22.91),<sup>970</sup> puṇḍraka (A.h.Sū.5.45),<sup>971</sup> puṣkarajāṭā (A.h.U.7.20;  
U.40.56),<sup>972</sup> rajanaka (A.h.Sū.15.45),<sup>973</sup> raktairāṇḍa (A.h.Sū.5.58),<sup>974</sup> raktayaṣṭikā  
(A.h.Sū.21.17),<sup>975</sup> rāmā (A.h.U.24.35),<sup>976</sup> rodhraśūka (A.h.Sū.6.1),<sup>977</sup> rodikā (A.h.U.  
28.35),<sup>978</sup> ruḍākara (A.h.Sū.15.21),<sup>979</sup> śabaradeśaja (A.h.U.16.4),<sup>980</sup> śabarakandaka  
(A.h.U.18.58),<sup>981</sup> śabarodbhava (A.h.U.32.31),<sup>982</sup> sadāphala (A.h.Sū.15.41),<sup>983</sup>  
śākavara (A.h.U.37.84),<sup>984</sup> śaṅkha (A.h.U.1.48),<sup>985</sup> śaṅkhakusumā (A.h.U.39.61),<sup>986</sup>  
śārāmukha (A.h.Sū.6.1),<sup>987</sup> saroruhā (A.h.Ci.14.70),<sup>988</sup> sarpalocanā (A.h.U.37.83),<sup>989</sup>  
sarpasugandhā (A.h.Ci.14.104),<sup>990</sup> śaśānikakiraṇākhyā (A.h.Ci.5.49),<sup>991</sup> śaśānikalekhā  
(A.h.Ci.19.46),<sup>992</sup> śataparvikā (A.h.Sū.7.25),<sup>993</sup> śēphālī (A.h.U.13.90),<sup>994</sup> śikhin  
(A.h.Ci.8.157; U.39.107 and 169),<sup>995</sup> śīśira (A.h.Sū.15.11),<sup>996</sup> śīta (A.h.Sū.15.37),<sup>997</sup>  
sphoṭahetu (A.h.Ci.20.11),<sup>998</sup> śrī (A.h.Ci.1.32),<sup>999</sup> śrīvāsa (A.h.U.3.56), śrīvāsaka  
(A.h.Sū.15.43),<sup>1000</sup> sruvavr̥kṣa (A.h.Sū.15.17),<sup>1001</sup> sthūlakākādanī (A.h.Ci.17.27),<sup>1002</sup>  
śukataru (A.h.U.5.20; 40.48),<sup>1003</sup> surālā (A.h.Sū.15.4),<sup>1004</sup> surataru (A.h.Ci.19.  
41; U.22.85),<sup>1005</sup> suravāruṇī (A.h.Ci.19.81),<sup>1006</sup> sūṣā (A.h.Sū.6.72; Ci.9.21),<sup>1007</sup>

suvarṇadugdhā (A.h.Ci.19.81),<sup>1008</sup> suvarṇatvac (A.h.Sū.21.17),<sup>1009</sup> svastika (A.h.Ci.9.20),<sup>1010</sup> śvetādrīkarnī (A.h.U.5.10),<sup>1011</sup> śvetakaṭābhī (A.h.U.5.10 and 46; 38.20),<sup>1012</sup> śvetapattrā (A.h.U.5.33),<sup>1013</sup> śvetarodhra (A.h.U.9.11; 16.16 and 32),<sup>1014</sup> śvetavāha (A.h.Sū.15.19),<sup>1015</sup> tala (A.h.Sū.15.19),<sup>1016</sup> tavakṣīrī (A.h.Sū.30.51; Ci.3.66; 5.30; 9.113; Ka.2.10; U.24.54; 39.37 and 42),<sup>1017</sup> tejini (A.h.Śā.2.42; U.22.56),<sup>1018</sup> tīkṣṇa (A.h.Ci.5.54; U.14.32; 19.14),<sup>1019</sup> tīkṣṇaka (A.h.Śā.1.88),<sup>1020</sup> tīkṣṇamūla (A.h.U.36.59),<sup>1021</sup> tīkṣṇavṛkṣa (A.h.Sū.15.45),<sup>1022</sup> tiktā (A.h.U.2.25),<sup>1023</sup> tiktaka (A.h.Ci.10.34; 15.70),<sup>1024</sup> tiktottama (A.h.Ka.1.24),<sup>1025</sup> tiṇḍīśa (A.h.Sū.6.87),<sup>1026</sup> toyada (A.h.Ci.12.7; Ka.4.35; U.34.46),<sup>1027</sup> trihima (A.h.Sū.15.19),<sup>1028</sup> tripādī (A.h.Sū.15.9),<sup>1029</sup> ṛṇadhānya (A.h.Ci.12.11),<sup>1030</sup> tuvarī (A.h.Sū.29.34; Ci.19.25),<sup>1031</sup> udaka (A.h.Ci.19.),<sup>1032</sup> ugra (A.h.U.5.20),<sup>1033</sup> ullaka (A.h.Ci.8.149),<sup>1034</sup> upalabhedaka (A.h.Ci.11.2),<sup>1035</sup> uttamakāraṇī (A.h.U.30.27),<sup>1036</sup> uttaravāruṇī (A.h.U.37.79),<sup>1037</sup> uttuṇḍikī (A.h.U.30.18),<sup>1038</sup> vaidehī (A.h.Ci.3.55; 9.90; Ka.4.50; U.11.43),<sup>1039</sup> vajra (A.h.Ci.19.19),<sup>1040</sup> valla (A.h.Sū.7.32),<sup>1041</sup> vāṃśika (A.h.Sū.5.45),<sup>1042</sup> vāraṇaka (A.h.Sū.17.7),<sup>1043</sup> vātyābhidhāna (A.h.Ci.14.36),<sup>1044</sup> vātyāhva (A.h.Ci.14.50),<sup>1045</sup> vāyasajaṅghā (A.h.Ci.19.76),<sup>1046</sup> vella (A.h.Sū.15.4; 23.15; 27.36; Ci.8.33, 65, 149, 155, 159; 12.25; 14.18 and 21; 15.10; 16.14 and 39; 19.36, 42, 81; U.1.46; 2.76; 6.28; 20.14, 18, 21, 23; 22.21 and 101; 28.28; 39.11, 150, 169),<sup>1047</sup> vellantara (A.h.Sū.15.24),<sup>1048</sup> viralā (A.h.Sū.15.41),<sup>1049</sup> viśvaśadha (A.h.Ci.3.120; 11.29),<sup>1050</sup> yavānaka (A.h.Ci.6.51; 8.46; 14.17; 17.11).<sup>1051</sup>

### The identities of the authors of the *Samgraha* and the *Hṛdaya*

Several views on the identity of the author of the *Samgraha* have already been discussed. Most scholars accept the trustworthiness of the information given at the end of the treatise, without discussing whether this information refers to the author of an original *Samgraha* or to a Vāgbhāta, who was involved in the process of its versification. The latter possibility would more easily explain that the *Hṛdaya* too came to be ascribed to Vāgbhāta.

J. Jolly,<sup>1052</sup> who regarded the information at the end of the *Samgraha* as probably reliable, advanced that the Vāgbhāta mentioned in the colophons of MSS of the *Hṛdaya*, where the genealogy is not repeated, may simply have usurped the name of Vāgbhāta, son of Sīṃhagupta.

A.B. Keith<sup>1053</sup> gave as his opinion that the younger writer was very possibly a descendant of the older, though there is no proof for such a conjecture beyond the fact that it might explain their confusion.

P.V. Sharma<sup>1054</sup> suggested that the author of the *Hṛdaya* may have been a grandson of the Vāgbhāta who wrote the *Samgraha*.

### The relative chronological positions of the *Samgraha* and the *Hṛdaya*

The anteriority of the *Samgraha* is accepted by the majority of those who expressed their opinion on the subject.<sup>1055</sup>

Various arguments in support are met with again and again. The language of the

*Hṛdaya* is thought to be more literary and sophisticated to such a degree that the work must be later.<sup>1056</sup> Those advancing this argument usually point to the fact that the *Hṛdaya* is entirely in verse, without examining and comparing the qualities of the parts in verse found in both works.<sup>1057</sup> Important would be to detect significant differences in this respect, proving the superiority of the *Hṛdaya*.

Few studies of this subject are so far available. P.V. Sharma<sup>1058</sup> made a list of the metres employed in *Samgraha* and *Hṛdaya*,<sup>1059</sup> and compared these with the metres found in Kālidāsa's *Abhijñānaśākuntala*. This study revealed that two metres used in the *Samgraha* are absent from the *Hṛdaya*: the campakamālā and the sārīpī.<sup>1060</sup> Metres found in the *Hṛdaya*, but not in the *Samgraha*, are: bhadṛā,<sup>1061</sup> daṇḍaka,<sup>1062</sup> dhīralalitā,<sup>1063</sup> gāthā, gīti,<sup>1064</sup> mandākrantā,<sup>1065</sup> mātrāsamaka,<sup>1066</sup> mattamayūra,<sup>1067</sup> mukhacapaḷā,<sup>1068</sup> śuddhavarāj,<sup>1069</sup> upacitrā,<sup>1070</sup> vaiśvadevī,<sup>1071</sup> vaitāṭīya,<sup>1072</sup> and vipulā.<sup>1073</sup>

Both *Samgraha* and *Hṛdaya* contain examples of the literary device of using the name of the metre in the verse composed in it.<sup>1074</sup>

Poetical guṇas frequent in the *Samgraha* are prasāda and mādhyura.<sup>1075</sup>

Elements of the prose style of the *Samgraha* are those called cūrṇaka (short compounds), utkalikā (long compounds), and āviddha (no compounds).<sup>1076</sup>

Rhetoric figures used in the *Samgraha* are:<sup>1077</sup> chekānaprāsa,<sup>1078</sup> lātānaprāsa,<sup>1079</sup> and yamaka<sup>1080</sup> among the śabdālaṃkāras; arthālaṃkāras employed are: arthāpatti,<sup>1081</sup> atīṣayokti,<sup>1082</sup> dīpaka,<sup>1083</sup> nidarśanā,<sup>1084</sup> rūpaka,<sup>1085</sup> svābhāvokti,<sup>1086</sup> tulyayogitā,<sup>1087</sup> upamā,<sup>1088</sup> utprekṣā,<sup>1089</sup> vibhāvanā,<sup>1090</sup> vyatireka,<sup>1091</sup> and yathāsaṃkhyā.<sup>1092</sup>

Hilgenberg and Kirfel are among the few scholars to have defended the thesis that the *Hṛdaya* is the basic work, while the *Samgraha* is an enlarged version of the same. They argued that the designation Vṛddhavāgbhaṭa for the *Samgraha* does not indicate at all that this work is the older of the two and listed many similar cases which suggest that a Vṛddha version is simply a later and expanded version of a shorter treatise. As a very clear example they mentioned the *Vṛddhacāṇakya*, a work definitely later than the more original collection going under Cāṇakya's name. The same authors were convinced that both *Hṛdaya* and *Samgraha* were originally metrical treatises. They regarded the *Samgraha* as it has come down to us as secondarily partly changed into prose and tried to underpin this by collecting a long series of passages which, in their opinion, show traces of a gradual transformation of verse into prose.

This list<sup>1093</sup> consists of: A. h. Sū. 12. 1–5ab (cf. A. s. Sū. 20. 1–2);<sup>1094</sup> Ci. 10. 50 (cf. A. s. Ci. 12. 13); 11. 47–54ab (cf. A. s. Ci. 13. 27–28);<sup>1095</sup> 12. 38cd–40ab (cf. A. s. Ci. 14. 21)<sup>1096</sup> and 42–43ab (cf. A. s. Ci. 14. 22);<sup>1097</sup> 13. 16–17 (cf. A. s. Ci. 15. 6)<sup>1098</sup> and 18cd–20ab (cf. A. s. Ci. 15. 6–7); 14. 82cd–83ab<sup>1099</sup> and 85–87ab (cf. A. s. Ci. 16. 25–27);<sup>1100</sup> 15. 93–94 (cf. A. s. Ci. 17. 35);<sup>1101</sup> 16. 2–4 (cf. A. s. Ci. 18. 2);<sup>1102</sup> 17. 22cd–24ab (cf. A. s. Ci. 19. 9) and 28cd–30ab (cf. A. s. Ci. 19. 12); 18. 26 (cf. A. s. Ci. 20. 11);<sup>1103</sup> 19. 1–2ab (cf. A. s. Ci. 21. 2); U. 1. 5d–7ab (cf. A. s. U. 1. 7–8) and 13cd–14 (cf. A. s. U. 1. 14–15);<sup>1104</sup> 11. 4cd–5ab (cf. A. s. U. 14. 4),<sup>1105</sup> 6cd–7ab (cf. A. s. U. 14. 5),<sup>1106</sup> 48cd (cf. A. s. U. 14. 37).

As the examples given by Hilgenberg and Kirfel in support of their thesis are not persuasive at all and miss all cogency, it is justified to dismiss their line of reasoning aiming at establishing that the *Samgraha* is posterior to the *Hṛdaya*.

Almost no further research has been devoted to the problem whether or not the *Samgraha* has come down to us in the form it originally had. The problem itself has even rarely been raised, except by Hilgenberg and Kirfel<sup>1107</sup> and, earlier already, by P. Cordier.<sup>1108</sup>

The hypothesis that the *Samgraha* was originally in prose only has never been put forward, but is hardly a possibility to be considered, on account of the incorporation of many unchanged verses deriving from the *Carakasamhitā*. Nevertheless, the parts in prose may well have been more extensive.

In support of this hypothesis appears to be the fact that Anantakumāra's *Yogaratnasamuccaya* contains quotations in prose, said to be from Vāhaṭa, which reproduce portions of the *Samgraha* which are in verse in the extant version.<sup>1109</sup>

One of the many enigmatic aspects of the *Samgraha* has to be considered in this context too, namely the fact that part of its chapters are completely identical with chapters found in the *Hṛdaya*. This is very conspicuous in the *Nidānasthāna*, where chapters four to six, eight, and twelve to sixteen are the same in both texts. The same feature is characteristic of the *Uttarasthāna*.<sup>1110</sup> A reason for this puzzling selective procedure has not yet been suggested.

The possibility that these chapters in verse replace earlier ones in prose, or in a mixture of verse and prose, cannot be excluded in principle.

Various problems have therefore to be addressed. First, the original state of the *Samgraha*, which need not be the text as it has come down to us. The text of the MSS requires therefore careful study, coupled to scrutiny of the quotations from *Samgraha* and *Vṛddhavāgbhaṭa*.

Some early scholars already stressed that the profuse quotations from the *Samgraha* in Hemādri's commentary on the *Hṛdaya* give evidence that the text he disposed of did not differ very much from that of the MSS on which the editions are based. Aruṇadatta's commentary (ad A.h.Sū.12.53–54ab), however, contains a quotation from the *Samgraha* consisting of twenty-five verses, which are absent from the editions of that treatise and replaced there by prose (Sū.20).<sup>1111</sup> These verses are supposed to be from another version of the *Samgraha* by P. Cordier, who first noticed them,<sup>1112</sup> though they are regarded as composed by Aruṇadatta from the original prose by Kuṛṇṇe and Navre.<sup>1113</sup>

Crucially important for assessing the development of the group of texts to which *Samgraha* and *Hṛdaya* belong are the quotations from a *Madhyasamhitā* or *Madhyavāgbhaṭa* (*samhitā*) and from *Madhyavāgbhaṭagupta*, found in the commentary of Niścala on the *Cakradatta* and that of Śivadāśasena on the *Uttarasthāna* of the *Aṣṭāṅghaṛdayasamhitā*.

Niścala's *Ratnaprabhā* contains a considerable number of these quotations. Śivadāśasena's commentary has a much smaller number. As each piece of this precious information may shed light on the nature of the lost treatise, I will give an annotated list:

Niścala ad *Cakradatta*, jvara 3 (= ed. *Ratnaprabhā* 3);<sup>1114</sup> jvara 3 (= ed. *Ratnaprabhā* 3);<sup>1115</sup> jvara 236 (= ed. *Ratnaprabhā* 235);<sup>1116</sup> jvara 238–239 (= ed. *Ratnaprabhā* 237–238);<sup>1117</sup> jvara 247–251 (= ed. *Ratnaprabhā* 248–252);<sup>1118</sup> jvara 288cd–290 (= ed. *Ratnaprabhā* 288–290);<sup>1119</sup> jvara 291 (= ed. *Ratnaprabhā* 291);<sup>1120</sup> atīśāra

4–5 (= ed. *Ratnaprabhā* 4–5);<sup>1121</sup> atīsāra 106 (= ed. *Ratnaprabhā* 104);<sup>1122</sup> graha-  
ṇī 5–6 (= ed. *Ratnaprabhā* 5–6);<sup>1123</sup> grahaṇī 9–11 (= ed. *Ratnaprabhā* 9–11);<sup>1124</sup>  
arśas 1–3 (= ed. *Ratnaprabhā* 1–3);<sup>1125</sup> arśas 92–95 (= ed. *Ratnaprabhā* 96–99);<sup>1126</sup>  
arśas 116–122 (= ed. *Ratnaprabhā* 120–126);<sup>1127</sup> arśas 155–160 (= ed. *Ratnaprabhā*  
159–164);<sup>1128</sup> agnimāndya 1 (= ed. *Ratnaprabhā* 1);<sup>1129</sup> agnimāndya 2 (= ed. *Ra-  
tnaprabhā* 2);<sup>1130</sup> agnimāndya 6–8 (= ed. *Ratnaprabhā* 6–8);<sup>1131</sup> agnimāndya 28 (ed.  
*Ratnaprabhā*; absent from other editions);<sup>1132</sup> agnimāndya 78 (= ed. *Ratnaprabhā*  
77);<sup>1133</sup> krimi 16 (= ed. *Ratnaprabhā* 12);<sup>1134</sup> pāṇḍuroga 23–24 (= ed. *Ratnaprabhā*  
22–23);<sup>1135</sup> raktapitta 38 (quotation in additional part of the commentary, found  
in one MS only);<sup>1136</sup> rājayakṣman 47–60 (= ed. *Ratnaprabhā* 47–60) (quotation in  
additional part of the commentary, found in one MS only);<sup>1137</sup> introductory part to  
the chapter on kāsa;<sup>1138</sup> introduction to hikkāśvāsa (quotation in additional part of  
the commentary, found in one MS only);<sup>1139</sup> madātyaya 21–22 (ed. *Ratnaprabhā*;  
absent from other editions) (quotation in additional part of the commentary, found  
in one MS only);<sup>1140</sup> madātyaya 21–22 (ed. *Ratnaprabhā*; absent from other edi-  
tions) (quotation in additional part of the commentary, found in one MS only);<sup>1141</sup>  
unmāda 29–30 (= ed. *Ratnaprabhā* 29–30) (this quotation may or may not be from  
*Madhyavāgbhaṭa*; the editor supplied *Madhya-*);<sup>1142</sup> oṣṭharoga 1 (= ed. *Ratnaprabhā*,  
mukharoga 1);<sup>1143</sup> dantamūlaroga 23–24 (= ed. *Ratnaprabhā*, mukharoga 32–33);<sup>1144</sup>  
dantaroga 8 (= ed. *Ratnaprabhā*, mukharoga 41);<sup>1145</sup> dantaroga 10 (= ed. *Ratnaprabhā*,  
mukharoga 43);<sup>1146</sup> jihvāroga 2 (= ed. *Ratnaprabhā*, mukharoga 45);<sup>1147</sup> jihvāroga  
6 (= ed. *Ratnaprabhā*, mukharoga 50);<sup>1148</sup> tālugaroga 7cd (= ed. *Ratnaprabhā*,  
mukharoga 58cd);<sup>1149</sup> kaṇthagataroga 1 (= ed. *Ratnaprabhā*, mukharoga 59);<sup>1150</sup>  
kaṇthagataroga 2 (= ed. *Ratnaprabhā*, mukharoga 60);<sup>1151</sup> kaṇthagataroga 3 (= ed.  
*Ratnaprabhā*, mukharoga 61);<sup>1152</sup> kaṇthagataroga 5 (= ed. *Ratnaprabhā*, mukharoga  
63);<sup>1153</sup> kaṇṇaroga 3 (= ed. *Ratnaprabhā* 3);<sup>1154</sup> kaṇṇaroga 11–12 (= ed. *Ratnaprabhā*  
11–12);<sup>1155</sup> kaṇṇaroga 23–24 (= ed. *Ratnaprabhā* 23–24);<sup>1156</sup> kaṇṇaroga 23–24 (= ed.  
*Ratnaprabhā* 23–24);<sup>1157</sup> kaṇṇaroga 49 (= ed. *Ratnaprabhā* 50);<sup>1158</sup> kaṇṇaroga 55 (=  
ed. *Ratnaprabhā* 56);<sup>1159</sup> kaṇṇaroga 56 (= ed. *Ratnaprabhā* 57);<sup>1160</sup> kaṇṇaroga 62–64  
(= ed. *Ratnaprabhā* 63–65);<sup>1161</sup> kaṇṇaroga 62–64 (= ed. *Ratnaprabhā* 63–65);<sup>1162</sup>  
netraroga 6 (= ed. *Ratnaprabhā* 6);<sup>1163</sup> Śivadāsa ad A.h.U.22.4cd–5ab;<sup>1164</sup> U.22.19–  
20;<sup>1165</sup> U.22.46ab;<sup>1166</sup> U.22.52;<sup>1167</sup> U.22.53–54ab;<sup>1168</sup> U.22.58cd–59;<sup>1169</sup> U.22.93 (=  
ed. 22.96);<sup>1170</sup>

Next to the quotations from a *Madhyavāgbhaṭa*, those from an *Alpavāgbhaṭa*  
and *Svalpavāgbhaṭa* have to be considered. The commentators quoting from these  
treatises are Nīścala and Śivadāśasena again. The *Alpavāgbhaṭa* is quoted by Nīścala  
ad *Cakradatta*, tālugaroga 7cd (= ed. *Ratnaprabhā*, mukharoga 58cd);<sup>1171</sup> kaṇṇaroga  
56 (= ed. *Ratnaprabhā* 57);<sup>1172</sup> anuvāsana 34 (= ed. *Ratnaprabhā* 33);<sup>1173</sup> The *Sva-  
lpavāgbhaṭa*<sup>1174</sup> is quoted by Nīścala ad *Cakradatta*, dantaroga 8 (= ed. *Ratnaprabhā*,  
mukharoga 41);<sup>1175</sup> kaṇṇaroga 23–24 (= ed. *Ratnaprabhā* 23–24);<sup>1176</sup> Śivadāśasena ad  
*Cakradatta*, kaṇṇaroga 11–13;<sup>1177</sup>

This material shows that a treatise intermediate between *Samgraha* and *Hṛdaya*  
once existed. The quotations collected prove beyond any doubt that the *Madhyavā-  
gbhaṭa* was still in a mixture of prose and verse, but contained already more verse than

the *Samgraha*, without the addition of any important new material. The *Alpavāgbhāṭa* and *Svalpavāgbhāṭa* did not differ much from the *Hṛdaya*, as far as can be judged from the scanty material at our disposal.<sup>1178</sup>

Versions of a treatise intermediate between *Samgraha* and *Hṛdaya* may still exist in some MSS. P. Cordier<sup>1179</sup> records that such a version has partially been edited under the title *Bābhāṭa*.<sup>1180</sup> This treatise, in 120 chapters, calls itself an *Aṣṭāṅgasamgraha*; its text sometimes agrees with the *Samgraha*, sometimes with the *Hṛdaya*, but also contains verses absent from both.<sup>1181</sup>

Āyurvedic treatises later than *Samgraha* and *Hṛdaya*, as well as commentaries, may contain quotations ascribed to Vagbhāṭa that cannot be traced, which implies that they are possibly from one of the intermediate works. One such quotation, found in Niścala's *Ratnaprabhā*,<sup>1182</sup> describes the treatment of *saṃgrahagrahaṇī*, a type of *grahaṇī* that appears in a verse added to the *Mādhavanidāna* and in later works, but is completely absent from the versions of *Samgraha* and *Hṛdaya* known to us.

All the evidence, when taken together, appears to suggest that it is legitimate to have doubts about the authenticity of the text of the *Samgraha* as it has been transmitted. The treatise known as *Aṣṭāṅgasamgraha* now may well be an already partially transformed version of an older text. The versification and the alterations in doctrine, therapeutics, etc., have probably formed part of a gradual process of change, which must have required time and the participation of a series of authors.<sup>1183</sup> The result of this development was the coming into being of the *Aṣṭāṅgahṛdayasaṃhitā*, a work that cannot simply be ascribed to one author, although one particular person may have given it its ultimate form.<sup>1184</sup>

The impression that the *Hṛdaya* is a harmonious unity as to style and contents, which led a majority of scholars to regard it as the work of one author, may be deceptive. This point has been clearly expressed in particular by Hilgenberg and Kirfel.<sup>1185</sup> Their reasoning, though based on the assumption of the anteriority of the *Hṛdaya*, requires consideration nevertheless. They pointed to differences in style of the *Nidānasthāna* of the *Hṛdaya*, when compared with the other sections, but, unfortunately, omitted to illustrate this claim, which makes it hard to assess. More important are two other points. The first chapter of the *Nidānasthāna* repeats (A.h.Ni.1.12–24), after dealing with the five elements constituting *nidāna*, the causes of excitation of the *doṣas*, which is a subject already discussed in the *Sūtrasthāna*. This may, in the opinion of Hilgenberg and Kirfel, mean that the *Nidānasthāna* originated as an independent treatise or as the first part of some medical work; in support of this hypothesis, they refer to the version of the *Nidānasthāna* extant in the *Garuḍapurāṇa*, where it is associated with the name of Dhanvantari; they add that the solution of this question hinges on the chronological position of the medical chapters of the *Garuḍapurāṇa*. The thesis that the repetition of material suggests an independent treatise need not be subscribed to, because this feature proves to be rather common, for example, in the *Carakasamhitā*, when its *Nidānasthāna* and *Cikitsāsthāna* are compared. Chapter one of the *Nidānasthāna* of the *Samgraha* presents the same repetition as that found in the *Hṛdaya*, and its prose version, probably older, is not directly related to that in verse of the *Garuḍapurāṇa*, which makes the reasoning of Hilgenberg and Kirfel unconvincing.

The conclusion of this long exposition can but be that the problems connected with the development of *Samgraha*, *Hṛdaya* and the intermediate versions, as well as those concerning the authors involved, are far from even approaching a solution.

### Vāgbhaṭa's renown

The fame of Vāgbhaṭa spread over a large area of Indian culture. The *Aṣṭāṅgaḥṛdayasaṃhitā* became the object of intensive study, as shown by the very large number of its commentaries. Several later works were inspired by it. The *Hṛdaya* was translated into Tibetan, together with Candranandana's commentary,<sup>1186</sup> and reached the Islamic world.

Vāgbhaṭa is held in high esteem particularly in Kerala, where he is the legendary master who taught the medical science to the ancestors of the Aṣṭavaidya lineages. The medical training of an Aṣṭavaidya physician ends with the daily recitation of ten chapters of the *Hṛdaya* in the family shrine, to be continued during a full year, the ekādaśī days of each half of the lunar month excepted; this exception honours the day of Vāgbhaṭa's supposed decease.<sup>1187</sup> An Aṣṭavaidya medical graduate is also obliged to make a palm leaf copy of the *Aṣṭāṅgaḥṛdayasaṃhitā*.<sup>1188</sup>

Vāgbhaṭa was also well known in Āndhra, as is attested by the existence of a rendering of the *Aṣṭāṅgaḥṛdayasaṃhitā* into Telugu verse. This version was made by Liṅgayārya, who was a pupil of the famous scholar Bālasarasvatī Mahāmahopādhyāya, in the seventeenth century.<sup>1189</sup>

Vāgbhaṭa's work (probably the *Hṛdaya*) was translated into Persian in A.D. 1473, by 'Alī bin Muḥammad bin Ismā'īl Asāwī Usailī under the title of *Ṣūfīā'-e-Mahmūdī*; it was written during the reign of Sulṭān Maḥmūd Shāh I of Gujarāt (A.D. 1458–1511), who founded a department of translation for famous Arabic and Sanskrit works. The work consists of eight sections, dealing respectively with anatomy, children's diseases, the evil effects of air, diseases and their treatment, wounds, the treatment of bites of poisonous animals, the treatment of possession states, and the restoration of virility.<sup>1190</sup>

An important issue that remains to be discussed is the relationship between the classical text of Tibetan medicine, called *Rgyud-bḥi*,<sup>1191</sup> and the *Aṣṭāṅgaḥṛdayasaṃhitā*. This relationship has been studied by R.E. Emmerick,<sup>1192</sup> who discovered that at least one stanza of the *Rgyud-bḥi* is absolutely identical with the corresponding passage in the Tibetan translation of Vāgbhaṭa's work.<sup>1193</sup> Moreover, consideration must be taken of the fact that many chapters of the *Rgyud-bḥi* correspond extremely closely to the Tibetan translation of the *Hṛdaya*, if allowance is made for the adjustment that is required to compare the nine-syllable lines of the *Rgyud-bḥi* with the seven-syllable lines of the Vāgbhaṭa translation. The question raised by this state of affairs concerns the relative chronology of the two Tibetan texts. Did the translator of the *Hṛdaya* make use of an already existing Tibetan version, traditionally ascribed to Vairocana, or is the *Rgyud-bḥi* based on Rin-chen bḥaṅ-po's Tibetan translation of the *Hṛdaya*? This question cannot be solved with any certainty.<sup>1194</sup>



## Chapter 2

### Authorities mentioned in the works ascribed to Vāgbhaṭa, but absent from Caraka- and Suśrutasaṃhitā

#### Authorities mentioned in the *Aṣṭāṅgahṛdayasaṃhitā*

- Agastya Ci.3.132; 6.55.
- Agniveśa Sū.1.4; Ni.2.62; U.40.59 and 62.
- Ātreya Sū.1.2; Śā.3.49; 5.128; U.34.50; 40.59.
- Atrinandana Śā.3.17.
- Atriputra Sū.1.3.
- Bhārgava (i.e., Cyavana) Ci.22.66.
- Bheḍa Ci.21.72; U.40.59 and 88.
- Caraka Sū.9.13; U.40.84 and 88.
- Cyavana (compare Bhārgava) U.39.39.
- Dhanvantari Śā.2.52; 3.16 and 50; Ci.10.63; 12.24; 17.14.
- Hārīta Ni.2.62.
- Kāśyapa U.37.24 and 28.
- Nimi U.11.27; 13.16 and 100; U.30.31.
- Punarvasu U.40.62.
- Śaunaka Ka.6.15.
- Suśruta U.30.31; 40.84 and 88.
- Vasiṣṭha Ci.3.140.
- Videha U.13.27; 22.83.
- Vṛddhakāśyapa U.2.43.

#### Authorities mentioned in the *Aṣṭāṅgasamgraha*

- Agastya Ci.5.84; 8.61; U.5.60.
- Agniveśa Sū.1.11; 28.34; Ni.2.64; Ka.5.57; U.50.202.
- Ālambāyana Sū.1.6; U.40.35.
- Ātreya often, e.g., Sū.1.2; 28.34; Śā.3.3 and 5; U.49.262.
- Atri U.50.209.
- Bharadvāja Sū.1.6; 8.59.
- Bheḍa Sū.1.11; Ci.16.14; 23.60.
- Bhoja U.42.50.
- Brhaspati Sū.8.62.
- Caraka Sū.28.54; Śā.10.29–32a; Ka.8, add. 25, 27, 61, 70.
- Cyavana Sū.8.59; U.49.45.

- Dhanvantari Sū.1.6; 8.59; Śā.3.8; 4.51; U.5.60; 40.36.
- Gautama Sū.8.86.
- Hārīta Sū.1.11; Ni.2.64.
- Janaka Sū.8.59.
- Kāṅkāyana Ci.10.51.
- Kapilabala Sū.20.17.
- Karāla Sū.1.11.
- Kāśīrāja Sū.28.34.
- Kāśyapa Sū.1.6.
- Kāśyapa Sū.1.6; U.40.149; 43.49 and 54; 48.72.
- Kauṭilya U.40.78.
- Khaṇḍakāpya Śā.3.5.
- Kharanāda Ka.8, add. 45, 47, 80.
- Kṛṣṇātreya Śā.10.33; Ka.8, add. 5 and 50.
- Māṇḍavya Sū.1.11.
- Nagnaḥjit U.40.33.
- Nārada U.49.206.
- Nimi Sū.1.6; U.16.16 and 94.
- Parāśara Sū.17.26; 21.16.
- Punarvasu Sū.1.5; Ka.5.57; U.40.28.
- Puṣkalāvata U.30.11.
- Śaunaka Ka.8.20–21.
- Suśruta Sū.1.11; 8.59; 20.18; 21.22; Śā.10.32; Ka.8, add. 17 and 79.
- Uśanas U.40.88.
- Vaitaraṇa U.42.50.
- Vasiṣṭha Ci.5.92.
- Videha Sū.8.59; U.17.7; 40.34.
- Videhapati Sū.28.34.
- Viśvāmitra U.74.2.
- Vṛddhakāśyapa U.2.60.

ĀLAMBĀYANA<sup>1</sup> is mentioned as a medical authority and a specialist in toxicology in the *Aṣṭāṅgasamgraha*.<sup>2</sup> He is quoted or referred to, almost always on toxicological subjects,<sup>3</sup> by Anantakumāra,<sup>4</sup> the author of the *Bhesajjamañjūsāsanaya*, Dalhaṇa,<sup>5</sup> Indu,<sup>6</sup> the author of the *Kairālī* commentary on the *Aṣṭāṅgaḥṛdayasamhitā*,<sup>7</sup> Parameśvara,<sup>8</sup> Śrīdāsapaṇḍita,<sup>9</sup> Śrīkaṇṭhadatta,<sup>10</sup> and Vācaspati.<sup>11</sup>

Ālambāyana is also known in Buddhist literature. The *Bhūridatta-Jātaka* (No. 543) refers to him as a toxicologist.<sup>12</sup>

Some representatives of the Indian tradition regard him as the author of a lost treatise on *kaumārabhr̥tya*,<sup>13</sup> but he is usually reckoned among the authors of an *agadatantra*.<sup>14</sup>

BRĤASPAṬI<sup>15</sup> is mentioned as a medical authority in the Bower Manuscript and in the *Aṣṭāṅgasamgraha*. The Bower Manuscript contains a formula ascribed to Br̥haspati

that aims at increasing bodily strength and bulk.<sup>16</sup> The *Aṣṭāṅgasamgraha* gives a series of prescriptions of Bṛhaspati to be employed in the protection of a king against the effects of poison.<sup>17</sup> The *Bhāratabhaiṣajyaratnākara* and *Yogaratanākara* attribute to Bṛhaspati the formula of a kumāryāsava to be used in the treatment of gulma.<sup>18</sup> Śivadāsasena regards Jivaka, to whom a recipe of the *Cakradatta* is attributed, as identical with Bṛhaspati.<sup>19</sup>

Hemādri's *Lakṣaṇaprakāśa* calls Bṛhaspati one of the originators of āyurveda.<sup>20</sup> Ugrāditya's *Kalyāṇakāraka* refers to him as one of those who were opposed to a non-vegetarian diet. Bṛhaspati is credited with a commentary on a *Dhanvantarisūtra*<sup>21</sup> and with alchemical works called *Rasacakra*<sup>22</sup> and *Rasacandratantṛa*.<sup>23</sup>

Bṛhaspati is regarded as the author of a treatise on toxicology (agadatantra)<sup>24</sup> or as a specialist in kaumārābhrtya.<sup>25</sup> He is already associated with medicine in the *Ṛgveda*<sup>26</sup> and *Atharvaveda*.<sup>27</sup> The medical skill of Bṛhaspati is also referred to in the *Rāmāyaṇa*.<sup>28</sup> The *Mahābhārata*<sup>29</sup> describes him as being ignorant of the mṛtasaṃjīvinī vidyā.<sup>30</sup>

Bṛhaspati's name is not only connected with human medicine, but also with gaśāśāstra and the treatment of diseases in elephants. He is mentioned in Pālakāpya's *Hastāyurveda* and Nīlakaṇṭha's *Mātāṅgalīlā*, and is the reputed author of a treatise on elephants, called *Gajalakṣaṇa* or *Bṛhaspatimata*.<sup>31</sup> A treatise on horses, *Aśvalakṣaṇa*, is also attributed to him.

Bṛhaspati and the *Bārhaspatya* are among the sources of kallolas six and seven of the *Śivatattvaratanākara*.

Bṛhaspati is associated with many other sciences: grammar, arthaśāstra, nītiśāstra,<sup>32</sup> dharmaśāstra, jyotiṣa, vāstuśāstra, citraśikhaṇḍiśāstra, and ratnaśāstra.<sup>33</sup>

KAPILABALA<sup>34</sup> is a medical authority quoted in the *Aṣṭāṅgasamgraha*.<sup>35</sup> He is also quoted or referred to by Cakrapāṇidatta,<sup>36</sup> Candrāṭa,<sup>37</sup> Indu,<sup>38</sup> Niścalakara,<sup>39</sup> Śivadāsasena,<sup>40</sup> Śrīdāsaṇḍita,<sup>41</sup> Śrīkaṇṭhadatta,<sup>42</sup> and Vaṅgasena,<sup>43</sup> as well as in the *Jvaracikitsita* and *Jvarasamuccaya*.<sup>44</sup>

Kapilabala is sometimes equated with Kapila.<sup>45</sup>

Kapilabala is, just like Kapila, credited with a śalyatantra.<sup>46</sup> This Kapilabala is often considered to be Dṛḍhabala's father;<sup>47</sup> evidence pointing to this identity is, however, absent.

G. Hāldār is of the opinion that Dṛḍhabala's father was called Kapibala and that a much earlier Kapilabala, whom he calls the navīnacāraka, revised the *Carakasamhitā*. He ascribes a *Kapilatantra* to him and assigns him to the period of Kaṇiṣka.<sup>48</sup>

The quotations from Kapilabala are not concerned with surgical subjects, but deal with basic concepts, general principles of treatment, the treatment of fever,<sup>49</sup> and pharmacy. The statements cited are partly in verse,<sup>50</sup> which indicate that they may be from a *Kapilabalatantra*. This treatise, anterior to the *Aṣṭāṅgasamgraha*, must even have preceded the revision of the *Suśrutasaṃhitā*, since Indu states that Suśruta was acquainted with Kapilabala's views. The quotations by Cakrapāṇidatta show that Bhaṭṭārāharicandra, the commentator on the *Carakasamhitā*, is later than Kapilabala and disagreed with him.

KHAṆḌAKĀPYA is in the *Aṣṭāṅgasamgraha* (Śā.3.5) a medical authority who contradicts Ātreya's views on the diet of a pregnant woman. He also makes his appearance in the *Bhelasamhitā* (Śā.4.30), where he takes part in the discussion on the formation of the embryo.<sup>51</sup>

MĀṆḌAVYA<sup>52</sup> is mentioned as the author of a medical treatise in the *Aṣṭāṅgasamgraha* (Sū.1.11). He is traditionally regarded as the author of a treatise on rasāyana.<sup>53</sup> Medical works referring to Māṇḍavya are Kapilamiśra's *Nāḍīprabodhana* and Ugrāditya's *Kalyāṇakāraka*. The latter work knows him as a sage who was opposed to a non-vegetarian diet. Pālakāpya's *Hastyāyurveda* knows Māṇḍavya as one of the sages assembled at Romapāda's court in order to be instructed in the art of hastyāyurveda.

The rasaśāstra literature is also acquainted with Māṇḍavya. His name occurs in the *Pāradasaṃhitā*,<sup>54</sup> *Rasaratnākara*,<sup>55</sup> *Rasaratnasamuccaya*,<sup>56</sup> *Rasatarāṅgiṇī*,<sup>57</sup> *Rasedramaṅgala*,<sup>58</sup> and *Rasopaniṣad*.<sup>59</sup>

Toḍara's *Āyurvedasaukhyā* quotes a verse from an authority called Māṇḍava.<sup>60</sup>

A treatise called *Rasavārīkhi* is ascribed to him.<sup>61</sup> Vācaspatimiśra's glosses on Vyāsa's commentary on the *Yogasūtra* mention that Māṇḍavya became a long-lived person due to his mastery of rasāyana techniques.<sup>62</sup>

Persons called Māṇḍavya are found in Vedic literature,<sup>63</sup> the *Mahābhārata*,<sup>64</sup> *Kaṇṭīliya Arthaśāstra*,<sup>65</sup> and several Purāṇas.<sup>66</sup> A Māṇḍavya is mentioned by Piṅgala as an authority on metrics.<sup>67</sup> An astronomer called Māṇḍavya is quoted in several jyotiṣa texts and commentaries.<sup>68</sup> Vaśiṣṭha is said to have been Māṇḍavya's teacher in matters relating to astronomy.<sup>69</sup>

UŚANAS<sup>70</sup> is a medical authority mentioned in the *Aṣṭāṅgasamgraha* (U.40.88), where an antidote (agada) is ascribed to him. The Bower MS (II.846–847) contains the formula of an aphrodisiac, attributed to Uśanas. Ḍalhaṇa quotes him as a specialist in the treatment of poisoning.<sup>71</sup> A verse from Uśanas on the twenty types of prameha is found in the *Āyurvedādbhisāra*.<sup>72</sup> Ballālasena refers to him in his *Adbhutasāgara*.<sup>73</sup>

Uśanas is usually regarded as the author of a treatise on toxicology (an āgadantra or -saṃhitā),<sup>74</sup> but his verse on prameha is not in agreement with this view.

The name of an ancient sage called Uśanas is found in the *Ṛgveda*, later Vedic literature, the Purāṇas, and literary works.<sup>75</sup> Uśanas is also referred to and quoted as an authority on poetics,<sup>76</sup> nītiśāstra,<sup>77</sup> dharmaśāstra, and dhanurveda.<sup>78</sup>

## Chapter 3

### Commentaries on the works ascribed to Vāgbhaṭa

Anonymous commentaries without title are recorded in the MS catalogues.<sup>1</sup>

ARUṆADATTA wrote a commentary called SARVĀNGASUNDARĀ,<sup>2</sup> which covers all the sections of the *Aṣṭāṅgaḥṛdayasaṃhitā*.

This commentary is a valuable and interesting work. It is obviously based on Candranandana's *Padārthacandrikā*, large parts of which are literally reproduced,<sup>3</sup> but adds much new material and is richer in references and quotations. Candranandana's views are not always blindly followed. Many passages show that Aruṇa had his own ideas, for example on the identity of medicinal plants.<sup>4</sup> The text of the *Aṣṭāṅgaḥṛdaya*, accepted by Aruṇadatta, differs at places from the version preferred by Candranandana.<sup>5</sup>

The *Sarvāṅgasundarā* is more elaborate than the *Padārthacandrikā*; it is evidently written by a learned man with a great command of a number of sciences.<sup>6</sup> Remarks on grammar are frequent and grammatical works are referred to,<sup>7</sup> as well as treatises on metrics and poetics.<sup>8</sup> The metres of Vāgbhaṭa's verses are often identified.<sup>9</sup> Remarkable is Aruṇa's skill in composing verses of his own.<sup>10</sup>

An important contribution of Aruṇadatta is his long and detailed exposition on the *tantrayuktis*.<sup>11</sup>

Characteristic of Aruṇa is his refusal to elucidate the Buddhist elements found in the *Aṣṭāṅgaḥṛdayasaṃhitā*.<sup>12</sup>

Authorities and works quoted or referred to by Aruṇadatta are:<sup>13</sup> *Abhidhānaśāstra* (Sū.26.16cd–17ab),<sup>14</sup> *Ācārya*,<sup>15</sup> *Āgama*,<sup>16</sup> *Agniveśa* (Sū.1.4cd–5ab), *Aṣṭāṅgasamgraha* (passim),<sup>17</sup> *Aṣṭāṅgāvatāra* (Sū.4.6cd–7c; Ci.17.17cd–19),<sup>18</sup> *Ātreya* (Sū.1.5cd–6ab; U.39.142), *Āyurvedāvatāra* (Sū.5.55–56; Śā.3.7–8ab),<sup>19</sup> *Bālāditya* (Sū.2.16),<sup>20</sup> *Bāṇa* (Sū.9.1c), *Bauddhatantra* (U.40.78–80), *Bhāṣya*(kāra or -kṛt) (Sū.4.9ab; Śā.5.15cd–16ab; Ni.11.17cd–18a; Ci.10.4–5),<sup>21</sup> *Bhaṭṭārahakariścandra* (Sū.1.1),<sup>22</sup> *Bheḍa* (Sū.1.3–4ab; Śā.5.30–32), *Caraka* (passim), *Dāruvāhi* (Sū.5.20cd–21c; Śāl.5), *Dhānvanantara* (Sū.5.44–45ab),<sup>23</sup> *dhānvanantarāḥ* (Sū.19.20cd–24ab), *Dhanvantari* (Sū.1.1; 6.158cd;<sup>24</sup> 17.2–4ab;<sup>25</sup> 19.20cd–24ab; Śā.3.90–95), *Dr̥ḍhabala* (Śā.3.62cd–63ab),<sup>26</sup> *grantha* (Sū.1.28cd, 30–31, 32ab, 32cd; Ni.3.3), *granthakāra* (Sū.5.51cd–53ab; 27.23cd–24ab; Ni.3.1–2),<sup>27</sup> *grantakṛt* (Sū.1.1, 5cd–6ab, 7cd; 13.28–29ab; 14.34; Ci.1.40ab; 3, intr.), *granthāntara* (Sū.5.50cd), *Hariścandra* (Sū.5.23cd),<sup>28</sup> *Hārīta* (Sū.1.3–4ab; 6.63cd–64ab; Ni.2.79), *Janaka* (Sū.1.4cd–5ab), *Jātūkarna* (Sū.1.3–4ab), *Jayāditya* (Sū.1.1),<sup>29</sup> *Kālidāsa* (Ci.21.5cd–6ab),<sup>30</sup> *kāṇādāḥ* (Sū.1.11ab), *Karṇāta* (Sū.9.1c),<sup>31</sup> *Kāśyapa* (Sū.1.3–4ab; U.3.47cd–48ab), *Kharanāda* and *Khārāṇādi*,

Kṛṣṇātreya (Sū.5.9cd–10; 6.7cd–8ab, 20cd–21ab, 158ab; Śā.5.2cd–3ab), Kṣārapāṇi (Sū.14.6–7ab), Māgha (Sū.2.25ab), Manu (Sū.12.70), Mīmāṃsā (Sū.8.1), Muni (often),<sup>32</sup> *Nāgānandanātaka* (Śā.5.6cd–8ab),<sup>33</sup> Nagnajit (Śā.3.62cd–63ab), *Nighaṇṭu* (Sū.6.97cd–98ab and 135cd–136ab),<sup>34</sup> Nimi (Sū.1.3–4ab), Pāṇaka (Sū.5.55–56),<sup>35</sup> Parāśara (Sū.1.3–4ab; 6.7cd–8ab; Ci.1.148), Ravigupta (Sū.5.23cd),<sup>36</sup> Rudrabhaṭṭa (Sū.1.7cd),<sup>37</sup> Rudrata (Sū.14.36),<sup>38</sup> *Samgraha* (passim),<sup>39</sup> *Sāṃkhya* (Śā.3.62cd–63ab),<sup>40</sup> *Śāstrakāra* (Sū.1.9; 4.35; 7.56cdd–59; U.5, intr.),<sup>41</sup> *Śāstrakṛt* (Sū.6.17–18ab; 6.172; U.40.5),<sup>42</sup> *Siddhasāra* (Sū.1.4cd–5ab; 5.23cd; 6.41cd; 7.45ab),<sup>43</sup> *Suśruta* (passim), *tantrakāra* (Sū.1.1, intr.; 1.1 and 6cd; 4.22cd–23; 5.51cd–53ab; Śā.1.8–9ab; 3.57–58; Ci.1.18–19ab and 70; U.40.78),<sup>44</sup> *tantrakārāḥ* (Ci.2.22; U.40.5), *tantrakṛt* (Sū.1.5cd–6ab; 7.32cd and 56cd–59; 9.3cd–4ab; 19.13–14ab; Ni.1.14–15; 2.6ab and 60–63; 3.1–2; 4, intr.; 10.36; Ci.1.39 and 104cd–105ab; 17.17cd–19; 21.56; Ka.1.28; U.5, intr.; 28.9cd; 40.78), *tantrakṛtaḥ* (Sū.18.31; 19.38cd–41ab; Ni.10.28; 11.39–41ab; Ci.1.39; 3.133–141ab), *tantrāntara* (Sū.3.30cd–32ab; 5.47ab and 70cd–71; 6.17–18ab, 25cd–26ab, 32ab, three quotations, 33ab, 38cd–40ab, 41cd, 106–107, 112ab, 122cd–125ab, 158cd; 8.55; 9.26cd–27ab; 12.65–66; 14.6; 16.20ab; 20.22ab; 23.15d–16ab and 25; 26.33–34; 27.44cd–45ab; 29.41ab; Śā.1.49ab; 2.3–6a; 3.55–56; Ni.2.21–22, 56cd–57, 60–63; 6.5; 9.15; Ci.1.15cd–16ab, 34cd, 47, 115cd; 2.27–28; 6.23–24; 8.89cd–93ab; 9.5cd–7; 14.13cd–21ab; 17.14cd–16; Ka.1.12d–13a; U.40.2cd–3 and 78),<sup>45</sup> *tantrāntarīyāḥ* (Sū.1.6), *tantrāntarīyamata* (Sū.19.38cd–41ab), *Udbhaṭa* (Sū.3.23cd–25),<sup>46</sup> *Vāgbhaṭa* (passim),<sup>47</sup> *vaiśeṣikāḥ* (Sū.1.1; 9.3cd–4ab), *Vālmīki* (Śā.5.110), *vṛddhavaidyāḥ* (Sū.19.20cd–24ab; 20.37–38; Ci.8.45cd–48ab; 19.77–78), and *Vyāsa* (Sū.2.26cd–27ab; 8.33cd–35ab; 14.20).<sup>48</sup>

Rudrata's *Kāvyālaṃkāra* is once (ad Sū.1.1) cited without a reference to the source. Another work from which Aruṇa borrowed may be the *Aṣṭāṅganighaṇṭu*.<sup>49</sup> Kuṇṭe and Navre assume that Kedārabhaṭṭa's *Vṛttaratnākara* is quoted (ad Sū.15.15 and 21–22),<sup>50</sup> this contention conflicts with Aruṇadatta's date. An additional passage, found in one MS of the *Sarvāṅgasundarā*, quotes the *Candrikā*.<sup>51</sup>

Aruṇadatta and his commentary are quoted or referred to by<sup>52</sup> *Dalhaṇa*,<sup>53</sup> *Hemādri*,<sup>54</sup> *Kṛṣṇadatta* in his commentary on Trīmalla's *Śataśloki*,<sup>55</sup> the author of the *Kairālī* commentary on the *Aṣṭāṅgaḥṛdayasaṃhitā*,<sup>56</sup> *Lakṣmīrāma* in his commentary on the *Siddhabhṛṣajānapimālā*,<sup>57</sup> *Meghadeva* in his commentary on the *Mādhavadravayaguna*,<sup>58</sup> *Narahari* in his *Vāgbhaṭamaṇḍana*,<sup>59</sup> *Nārāyaṇa*,<sup>60</sup> *Parameśvara*,<sup>61</sup> *Śaṃkara*'s *Lalitā* on the *Aṣṭāṅgaḥṛdaya*,<sup>62</sup> *Śivadāsa*śena,<sup>63</sup> *Śrīdāsa*pāṇḍita,<sup>64</sup> the commentary on the *Tantrayukti*, *Ṭodara*,<sup>65</sup> and *Vācaspati*.<sup>66</sup>

The *Sundarī*, quoted in Anantakumāra's *Yogaratanasamuccaya*,<sup>67</sup> is probably Aruṇa's commentary.

Aruṇadatta,<sup>68</sup> who calls himself Aruṇa in the introductory verses of his commentary,<sup>69</sup> was a son of Mṛgāṅkadatta.<sup>70</sup> He was a Hindu by faith, as shown by the maṅgala, addressed to Viṣṇu. Some suppose Aruṇa to hail from North India,<sup>71</sup> while others assert that he was a resident of Bengal.<sup>72</sup>

Some are of the opinion that Aruṇa not only commented on the *Aṣṭāṅgaḥṛdaya*, but on the *Aṣṭāṅgasamgraha* too.<sup>73</sup> The solution of the problem whether or not Aruṇadatta

wrote a commentary on the *Aṣṭāṅgasamgraha* depends on the interpretation of a single reference in Ḍaḷhaṇa's *Nibandhasamgraha* (ad Su.Ka.1.30). Ḍaḷhaṇa's contrasts the interpretation of the term akṣivairāgya,<sup>74</sup> given by Gayin (= Gayadāsa), with the views of the *Samgraha* and Aruṇa. This remark has been seen as pointing to a commentary on the *Samgraha* by Aruṇa,<sup>75</sup> although it places the *Samgraha* and Aruṇa side by side, without establishing a relationship between them. The term akṣivairāgya occurs in the *Aṣṭāṅgahrdayasamhitā* (Sū.7.16) in the same context as in the *Suśrutasaṃhitā*, and is explained by Aruṇa in a sense that is close to Ḍaḷhaṇa's reference, albeit not literally the same. The *Aṣṭāṅgasamgraha* (Sū.8.12) does not employ the word akṣivairāgya, but an expression related to the wording of Aruṇa's remark. This proves, in my view, that Ḍaḷhaṇa refers to the *Samgraha* and Aruṇadatta's commentary on the *Aṣṭāṅgahrdaya*.<sup>76</sup> P.V. Sharma,<sup>77</sup> however, considers Ḍaḷhaṇa's remark to be a reference to the lexicographer Aruṇa.

It may be that Aruṇadatta wrote a commentary on the *Suśrutasaṃhitā*, recorded as *Suśrutatīkā*.<sup>78</sup>

Uncertainty exists on the question whether or not the commentator Aruṇadatta is identical with the lexicographer and grammarian of the same name. The earliest work citing the latter is Vardhamāna's auto-commentary on the *Gaṇaratnamahodadhi*,<sup>79</sup> a work dated to A.D. 1140.<sup>80</sup>

Other authors and works quoting him are an anonymous commentary on the *Amarakoṣa*,<sup>81</sup> Bhānuji Dīkṣita's *Vyākhyāśudhā* on the *Amarakoṣa*,<sup>82</sup> Durgasiṃha's *Nāmalīṅgānuśāsana*,<sup>83</sup> Jñānavimalagaṇi's commentary on Maheśvara's *Sabdabhedaprakāśa*,<sup>84</sup> the commentaries on the *Amarakoṣa* by Mallinātha,<sup>85</sup> Nārāyaṇa Vidyāvinoda<sup>86</sup> and Rāyamukuta,<sup>87</sup> Sādhusundaragaṇi's *Dhāturatnākara*,<sup>88</sup> Sarvānandavandyaghaṭṭi's *Ṭīkāsarvasva* on the *Amarakoṣa*,<sup>89</sup> the *Saupadmadhātupāṭhavyākhyā*,<sup>90</sup> Ujjvaladatta's *Vṛtti* on the *Uṇādisūtras*,<sup>91</sup> and Viśvanātha's *Koṣakalpataru*.<sup>92</sup>

The commentator Aruṇadatta lived probably in the northern part of India, because he remarks (ad A.h.Sū.7.71) on the practice of fellatio, censured by him, that is current among the southerners.<sup>93</sup> This assertion runs counter to Vātsyāyana's observation that oral intercourse was typical of the inhabitants of the Pañjāb.<sup>94</sup> As a northerner, Aruṇa may have committed a pious fraud in blaming the southerners for a disdained practice.

Some<sup>95</sup> suppose Aruṇadatta to have been a Bengali on account of the ending -datta of his name.

Aruṇadatta, the commentator on the *Aṣṭāṅgahrdaya*, must have lived earlier than about A.D. 1200, since Ḍaḷhaṇa refers to him.<sup>96</sup> The terminus post quem can be deduced from his sources. Aruṇa's main source, Candranandana's *Padārthacandrikā*, was written between the middle of the eighth century and about A.D. 1000. The quotations from Rudraṭa, who lived in the ninth century,<sup>97</sup> and from the *Dhanvantariyanighaṇṭu*, dating from A.D. 1000–1100, are valuable landmarks, indicating that Aruṇa belongs to the twelfth century. The absence of quotations from Aruṇadatta's commentary in the *Madhukośa* and Niścalakara's *Ratnaprabhā*<sup>98</sup> may be seen as pointing to about the middle or the latter half of the twelfth century as the period in which the *Sarvāṅgasundarā* came into being.<sup>99</sup>

A.F.R. Hoernle's date of Aruṇadatta, about A.D. 1220, uncritically adopted in many later books and articles,<sup>100</sup> but reached on faulty grounds,<sup>101</sup> can be dismissed. Hoernle supposed that the author of the second part of the *Madhukośa*<sup>102</sup> controverts a certain doctrine of Aruṇadatta concerning the structure of the eye, but the latter's name is not mentioned,<sup>103</sup> which makes the assertion baseless and without any consequence for Aruṇa's date.

The problem whether or not the commentator Aruṇadatta is identical with the lexicographer of the same name, who must be earlier than A.D. 1140, cannot be solved with any certainty. Chronological considerations do not completely rule out the possibility that the two are one and the same person,<sup>104</sup> but the lexicographer may have lived earlier.<sup>105</sup>

Āśādhara wrote a commentary, called AṢṬĀNGAHRDAYODDYOTA or *-uddiyotinī*.

Āśādhara was the son of Sallakṣaṇa and Rāṭhī or Ratnī. His wife was called Sarasvatī and his son Chāhaḍa. He was of Vyāghreravāla (Bagheravāla) lineage and a Digambara Jain householder.

Originally, Āśādhara lived in the central part of Rājasthān (Sapādalakṣa), in the town Maṇḍalakara (Māṇḍalgarh, in the Bhīlvārā district), in Śākambharī, the Cauhan kingdom. The campaigns of Muḥammad of Ghūr, and the accompanying Muslim atrocities, made him seek refuge in Dhārā, in Mālwa, in 1193, where he began his studies of grammar and logic.<sup>106</sup> Later, he moved to Nalakacchapura (Nālchā), about twenty miles from Dhārā, and remained there.

Āśādhara was born about A.D. 1180 and wrote his works between about 1205 and 1244. He was honoured by the kings Vindhya-varman, Arjunavarman, Devapāla, and Jaitugideva, who are referred to in his writings.

Some of his works are: *Dharmāmṛta*, *Jinayājñakalpa*, *Pratiṣṭhāsāroddhāra*, *Triṣaṣṭisnṛtiśāstra*, and a commentary on the *Kāvya-lāṅkāra*.

Āśādhara's *Uddyota* on the *Aṣṭāṅgahrdaya*, of which no manuscripts are recorded, is mentioned in one of his other works.<sup>107</sup>

Another Āśādhara, son of Rāmaḥ and pupil of Dharaṇīdhara, was the author of a commentary on Appaya Dīkṣita's *Kuvalayānandakārikās*; he also wrote the *Kovidānanda* and its commentary, and, probably, the *Advaitaviveka* and (*Śabda*)*trivenikā*.<sup>108</sup>

A jyotiṣa author Āśādhara, son of Rihluka, wrote the *Graha-jñāna*, also called *Graha-gaṇita*.<sup>109</sup>

An anonymous AṢṬĀNGAHRDAYAVṚTTI is recorded by A. Rahman.<sup>110</sup>

An anonymous commentary, called BĀLABODHINĪ, is recorded as being preserved in a single MS of the Government Oriental Manuscripts Library, Madras.<sup>111</sup>

An anonymous commentary, called BĀLAPRABODHIKĀ, is recorded by Th. Aufrecht<sup>112</sup> and some later authors.<sup>113</sup> The *Bālāprabodhikā* was one of the commentaries known to the author of the *Aṣṭāṅgahrdayasaṃgraha*. A commentary, called *Bodhikā*, is referred to in Śaṃkara's *Lalitā*; it may also be Śrīdāsa's *Hṛdayabodhikā* or Udayāditya's commentary.



BHAṬṬĀRAHARIŚCANDRA is by some regarded as the author of a commentary on the *Aṣṭāṅgahr̥daya*.<sup>114</sup> There is no evidence in support of this assertion.<sup>115</sup>

BHAṬṬĀŚRĪVARDHAMĀNA is mentioned as the author of a commentary called SĀ-RODDHĀRA.<sup>116</sup>

A commentary, called BRHADVYĀKHYĀSĀRA,<sup>117</sup> is mentioned by N.S. Mooss<sup>118</sup> and P.V. Sharma.<sup>119</sup>

A commentary, called BRHATPĀṬHYĀ,<sup>120</sup> is mentioned by A. Rahman,<sup>121</sup> N.S. Mooss,<sup>122</sup> and P.V. Sharma.<sup>123</sup>

CANDRANANDANA<sup>124</sup> was the author of the PADĀRTHACANDRIKĀ, a commentary on the whole of the *Aṣṭāṅgahr̥dayasaṃhitā*. He also wrote the *Madanādinighaṇṭu*, and, according to some, a collection of glosses (vṛtti) on the *Aṣṭāṅgahr̥daya*.<sup>125</sup>

The *Padārthacandrikā*<sup>126</sup> is, on account of its early date, an important work. It is therefore regrettable that only the portion covering the Sūtrasthāna has been edited. Glimpses of the interpretations of verses from the other sections can be caught from the quotations in the footnotes to Kuṇṭe and Navre's edition of the *Aṣṭāṅgahr̥dayasaṃhitā*.<sup>127</sup>

Candranandana does not quote from or refer to earlier commentators on Vāgbhaṭa's work. In general, his *Padārthacandrikā*, at least the part covering the Sūtrasthāna, is not a rich source of quotations and references.

Sources he does quote or refer to are:<sup>128</sup> *Āgama* (1.2, 5cd–6ab, 19, 27, 30–31; 2.16; 3.12–14; 4.4cd–5ab; 5.68, 74cd, 79–80; 6.26cd–28ab,<sup>129</sup> 32cd, 43; 8.53; 10.1; 16.14ab), Agniveśa (1.3–4ab), Ātreya (1.1), Atriputra (1.3–4ab), Bhāradvāja (1.3–4ab), Bhaṭṭāraka (1.17cd),<sup>130</sup> Bheḍa (1.3–4ab), Caraka (passim), Dhanvantari (1.3–4ab; 6.158cd),<sup>131</sup> kāṇādālī (1.11ab), Kāśyapa (1.3–4ab), Kharanāda (6.115cd–117ab, 131cd–133, 149cd, 153cd–157),<sup>132</sup> Kṛṣṇātreya (6.158ab), Kṣīrapāni (1.3–4ab), *Nighaṇṭu* (6.97cd–98ab<sup>133</sup> and 136ab),<sup>134</sup> Parāśara (1.3–4ab), Punarvasu (1.3–4ab), *Samgraha* (passim),<sup>135</sup> *Siddhasāra* (7.45ab), Suśruta (passim), and *tantrāntara* (5.29ab,<sup>136</sup> 6.33cd, 106–107, 112,<sup>137</sup> 122cd–125ab,<sup>138</sup> 158cd; 29.41ab).<sup>139</sup>

Candranandana's *Madanādinighaṇṭu* is not quoted by name, but the synonyms of medicinal plants, given in the commentary, are usually those found in that *nighaṇṭu*,<sup>140</sup> whereas Aruṇadatta obviously drew his information from another source. With regard to the names of plants, Hemādri remains closer to Candranandana than Aruṇadatta does. In other respects, Aruṇadatta was heavily indebted to Candranandana, since many parts of his commentary are literally copied from the *Padārthacandrikā*.<sup>141</sup>

Candranandana or his commentary are quoted by Aruṇadatta,<sup>142</sup> Dalhaṇa,<sup>143</sup> Hemādri,<sup>144</sup> Nīścalakara,<sup>145</sup> Śrīkaṇṭhadatta,<sup>146</sup> Ṭoḍara,<sup>147</sup> and Vācaspati.<sup>148</sup>

Quotations from a commentary called *Candrikā* may in some instances be from the *Padārthacandrikā*.<sup>149</sup>

A *Candratikā* is mentioned at the end of Śivadāśasena's commentary on the *Cakradatta*.<sup>150</sup>

Candranandana wrote his *Padārthacandrikā* at the instance of Śakunadeva.<sup>151</sup>

The maṅgala is addressed to Hari.

G. Hāldār alleges that the author called by him Vāgbhaṭa IV, the son of Nemi, wrote a ṭippaṇī on the *Padārthacandrikā* in the thirteenth or fourteenth century.<sup>152</sup>

The *Padārthacandrikā* was translated into Tibetan by Rin-chen bzan-po<sup>153</sup> in the period 1013–1055.<sup>154</sup> This translation, with the title *Yan-lag brgyad-paḥi sñin-poḥi rnam-par hgreḥ-pa chig-gi don-gyi zla-zer zhes-bya-ba*, i.e., *Padārthacandrikāprabhāsa nāma aṣṭāṅgaḥṛdayavivṛti*,<sup>155</sup> forms part of the Tanjur.

It is remarkable that the Tibetan translations of the *Aṣṭāṅgaḥṛdaya* and its commentary by Candranandana are later than the translation of Vāgbhaṭa's *Vaidūryakabhāṣya*. This fact is recorded in Jayapaṇḍita's *Thob-yig*.<sup>156</sup> It is equally noteworthy that the Tibetan translators of the *Aṣṭāṅgaḥṛdaya* did not always agree with Candranandana's interpretations of its text.<sup>157</sup>

Candranandana's *Aṣṭāṅgaḥṛdayavivṛti*, called in Tibetan *Sman-dpyad yan-lag brgyad-paḥi sñin-poḥi hgreḥ-pa*, i.e., *Vaidya Aṣṭāṅgaḥṛdayavivṛti*, is a collection of annotations on Vāgbhaṭa's work.<sup>158</sup>

DĀMODARA wrote a commentary called *SAṂKETAMAÑJARĪ*.<sup>159</sup>

An anonymous commentary called *DĪPIKĀ* is recorded.<sup>160</sup>

HĀṬAKĀṆKA wrote a commentary called (*Aṣṭāṅgaḥṛdaya*)*DĪPIKĀ*.<sup>161</sup> This author is quoted as Hāṭaka by Parameśvara and Śrīdāsaapaṇḍita, which may indicate that he lived in Southern India.<sup>162</sup> Śrīdāsa's quotations establish that he is anterior to Vāsudeva, Śrīdāsa's teacher,<sup>163</sup> and later than Indu, with whom Hāṭaka often argues in his interpretations.<sup>164</sup>

HEMĀDRI wrote a commentary called *ĀYURVEDARASĀYANA*,<sup>165</sup> which probably covered the whole of the *Aṣṭāṅgaḥṛdayasaṃhitā*.<sup>166</sup> The preserved parts contain the commentary on the *Sūtrasthāna*, *Nidānasthāna* 1–5 and 6.24cd–39, *Cikitsasthāna* 1–6 and 7.100–115, and the *Kalpasthāna*.<sup>167</sup>

Hemādri's fame in Indian literary history is based on his authorship of the *Caturvargacintāmaṇi*.

The introductory verses of the *Āyurvedarasāyana* declare that this work was written in order to enable man to acquire a healthy body, which is essential for the observance of fasts and vows and the performance of the ceremonies laid down in the *Caturvargacintāmaṇi*. The same verses mention his intention to elucidate differences between the *Aṣṭāṅgaḥṛdaya* and *Aṣṭāṅgasamgraha*, as well as dissentient views expounded in other treatises. Hemādri adds that his comments will be based on the opinions of Caraka, Hārīta, Suśruta, and other authorities, on the commentaries on the *Carakasamhitā* by Haricandra and others, and on the commentaries by Jaijñā and others on the *Suśrutasaṃhitā*.

A remarkable feature of Hemādri's commentary is the order he chose for his comments on the *Sūtra*- and *Kalpasthāna*. The chapters of these sections are arranged as

follows: Sū.1–15, Ka.6, Sū.16–18, Ka.3, Ka.1–2, Sū.19, Ka.5, Sū.20–30.<sup>168</sup>

The *Āyurvedasāyana* differs considerably from the earlier commentaries by Candranandana, Indu, and Aruṇadatta. Characteristic for the work are the extensive quotations from the *Aṣṭāṅgasamgraha*,<sup>169</sup> and, in particular, the use made of Vṛṇḍa's *Siddhayoga*<sup>170</sup> and Vaṅgasena's *Cikitsāsārasamgraha*.<sup>171</sup>

Hemādri pays less attention than Aruṇadatta to points of grammar, metres, figures of speech, etc. Theoretically interesting are his remarks on the guṇas and their actions,<sup>172</sup> on sātmya,<sup>173</sup> and on ojas.<sup>174</sup> He was acquainted with Keśava's *Siddhamantra* and Vopadeva's *Siddhamantraprakāśa*, as is shown by his making use of the concept of udāsīnatva.<sup>175</sup> The identity of medicinal substances is taken notice of; Hemādri's observations on this subject deviate frequently from those of his predecessors;<sup>176</sup> vernacular names are not mentioned.<sup>177</sup>

Astronomy was one of the sciences to which Hemādri felt attracted. He discusses at length which months make up a particular season and rejects Suśruta's views. In his opinion the season called vasanta comprises the months Phālguna and Caitra when the saṃkrānti of Pisces occurs in the beginning of Phālguna, but it is composed of Caitra and Vaiśākha when the saṃkrānti takes place at the end of Phālguna, etc.<sup>178</sup>

Hemādri is evasive with regard to the Buddhist elements in the *Aṣṭāṅghr̥daya*.<sup>179</sup> Remarks on the text and its variants are almost absent.

The following authorities and works are quoted or referred to by Hemādri:<sup>180</sup> ācārya (Sū.4.25; 7.48),<sup>181</sup> Aruṇadatta (Sū.7.41ab), *Aṣṭāṅghr̥daya* (Sū.1.1), *Aṣṭāṅgasamgraha* (Sū.1.1), Aśvinau (Ci.3.166cd–167ab; 5.33cd–34),<sup>182</sup> Ātreya (Ci.5.33cd–34),<sup>183</sup> *Āyurvedaprakāśa* (Sū.6.105cd; 10.17–19; Ci.1.19cd–20),<sup>184</sup> Bāṣpacandra (Sū.3.11–14; 6.112cd–113ab and 122cd–125ab), Bhaṭṭārahaharīścandra (Sū.7.48),<sup>185</sup> Bheḍa (Sū.7.55cd–56ab; 7.65 and 73; 8.28), Bhṛgu (Ci.3.167cd–169ab),<sup>186</sup> Brahmadeva (Sū.7.40–41ab), Br̥haspati (Sū.7.22cd–26),<sup>187</sup> Candranandana (Sū.7.40–41ab), Caraka (passim), *Caturvargacintāmaṇi* (Sū.1.1), *Cikitsākalikā* (Sū.6.160; 16.1), Dalhara (Sū.7.40–41ab), dhanvantarīyāḥ (Sū.19.20cd–24ab), *dharmasāstra* (Sū.2.1–3), Gautama (Sū.7.22cd–26),<sup>188</sup> Hariścandra (Sū.1.1; 6.75cd–78),<sup>189</sup> Hārīta (Sū.1.1; 6.63cd–64ab and 75cd–78), Indu (Sū.7.40–41ab), Jaijyāta (Sū.1.1; 2.12cd; 6.75cd–78 and 79cd; 7.40–41ab; 8.28), *jyotiḥśāstra* (Sū.3.1–2; 5.6–8ab),<sup>190</sup> Kapila (Sū.1.15cd–16ab), Kāśyapa (Sū.3.1–2; 5.6–8ab), Khāraṇādi,<sup>191</sup> Mādhavakara (Sū.8.28),<sup>192</sup> Mādhavakāra (Sū.6.75cd–78, 81, 97cd–98ab, 99cd, 137cd–138, 193 161cd–163ab; 194 7.40–41ab),<sup>195</sup> Manu (Sū.2.5cd–6ab), Paṇḍitakeśava (Sū.6.105cd),<sup>196</sup> Parāśara (Sū.9.21; 13.15),<sup>197</sup> *Rasāyurveda* (Sū.7.74), *Rugvinīścaya* (Ni.1.3d–4ab; 2.53ab, 66cd–67ab, 74cd–76ab; 98 3.16cd–17ab; 6.35),<sup>199</sup> *Samgraha* (passim),<sup>200</sup> satkāryavādinah (Sū.1.1), saugatāḥ (Sū.7.77), Śaunaka (Ni.1.23cd–24ab),<sup>201</sup> *Siddhayoga* (Ci.1.19cd–20, 26cd–27ab, 47; 1.54cd–55ab, twice; 1.59, 62–63, 64–65ab; 1.66cd–67ab, twice; 1.70ab, 81cd–83, 94, 166ab; 2.42–44ab),<sup>202</sup> smṛti (Sū.2.1–3), Suśruta (passim), *tantrāntara* (Sū.1.1; 5.41; 6.75cd–78, 158, 160; 7.48; 11.37–39ab; 20.37–38; Ka.4.73; 203 6.8–9ab and 14d),<sup>204</sup> Vāgbhaṭācārya (Sū.1.1; 3.1–2; 6.5cd and 75cd–78), Vaṅgasena (Sū.8.28; Ni.2.33cd; 5.13cd–15ab, 43cd–45ab, 57cd–58ab; Ci.1.1–2, 18–19ab, 23ab; 1.54cd–55ab, three quotations; 1.59, 62–63; 1.66cd–67ab, two quotations; 1.94, 99–101, 128, 129–130ab, 134cd–135, 150, 166ab, 171–172; 2.35ab, 42–44ab,

44cd–45ab, 50; 3.10ab, 31–33ab, 42cd–44ab, 63cd–67ab, 80, 166cd–167ab; 4.8–9, 20cd–22, 55cd–56ab, 60ab; 5.3–4ab, 25cd–27, 33ab, 33cd–34, 52cd–53; 6.32cd–33, 47cd–49ab, 54cd–55, 57cd–58ab, 59cd, 60–67, 68, 69–72ab, 72cd–74, 82cd–83ab, 83cd–85ab; 7.104cd–107ab),<sup>205</sup> vedavādinah (Sū.7.77),<sup>206</sup> Videhādhipa (Sū.7.22cd–26),<sup>207</sup> Viśvāmītra (Sū.5.11–12), vṛddhavaidyāḥ (Ci.3.114–118ab; Ka.6.14cd), Vṛnda (Sū.5.76–77ab; 19.38cd–41ab; Ni.2.53cd; Ka.2.29–30ab; 3.11–14; 6.17cd–18),<sup>208</sup> and *Yogaratra* (Ci.3.31cd–32, 63cd–67ab, 68–69, 85cd, 166cd–167ab, 167cd–169ab; 4.6cd–7; 5.25cd–27 and 58cd–60; 6.17cd–21, 43cd, 60–67, 68, 72cd–74; 7.104cd–107ab),<sup>209</sup>

Works quoted without any reference<sup>210</sup> are the *Dhanvantārīyanighaṇṭu* (Sū.6.128cd–129ab),<sup>211</sup> *Medinikośa* (Sū.6.42),<sup>212</sup> *Śārṅgadharasāṇhitā* (Sū.5.76–77ab),<sup>213</sup> *Siddhasāra* (Ci.2.42–44ab),<sup>214</sup> 6.17cd–21),<sup>215</sup> *Siddhayoga* (Ci.5.10cd–11),<sup>216</sup> *Vaṅga-sena* (Ci.1.81cd–83; 6.17cd–21),<sup>218</sup> and *Viśvaparakāśakośa* (Sū.6.42).<sup>219</sup>

Hemādri is quoted or referred<sup>220</sup> to in Bhānuji Dīkṣita's commentary on the *Amarakośa*, Gopāla's commentary on Trimalla's *Śataśloki*, Guḥrājśarmamīśra's *Viśikhānupraveśavijñāna* and commentary on the *Āyurvedaprakāśa*, Kṣṇadatta's commentary on Trimalla's *Śataśloki*, the *Kusumāvalī* on the *Siddhayoga*,<sup>221</sup> Lakṣmīrāma's commentary on the *Siddhabheṣajamaṇimālā*,<sup>222</sup> Nṛsiṃhakavi's *Vāgbhaṭamaṇḍana*,<sup>223</sup> Priyavrat Śaṁṇā's auto-commentary on his *Dravyaguṇasūtra*,<sup>224</sup> Śivadatta's auto-commentary on the *Śivakośa*,<sup>225</sup> the *Tāmbūlakalpasamgraha*, *Tāmbūlamanjari*, and *Yogarātnākara*.<sup>226</sup>

Hemādri<sup>227</sup> was a brāhmaṇa of Vatsagotra,<sup>228</sup> son of Kāmadeva, grandson of Vāsudeva, and great-grandson of Vāmana.<sup>229</sup> The year of his birth may have been A.D. 1193 or 1194.<sup>230</sup>

Hemādri is well known as the author of the *Caturvargacintāmaṇi*,<sup>231</sup> a large encyclopaedia of ancient religious rites and observances, divided into four parts: (1) *Vratākhaṇḍa*, on religious fasts and observances, (2) *Dānakhaṇḍa*, on gifts, (3) *Tīrthakhaṇḍa*, on pilgrimages to holy places, and (4) *Mokṣakhaṇḍa*, on the path to final deliverance. A fifth part, in the form of an appendix called *Parīṣeṣakhaṇḍa*, consists of voluminous treatises on the setting up and dedication of images of the deities (devatāpratīṣṭhā), offerings to the manes (śrāddha), the determination of the proper times and seasons for the performance of religious rites (kālanirṇaya), lakṣaṇasamuccaya, and atonement (prāyaścitta).<sup>232</sup> The *Caturvargacintāmaṇi* is a standard work,<sup>233</sup> replete with information and quotations; it is full of discussions which cannot be well understood without thorough acquaintance with the numerous rules of the *Mīmāṃsā*.<sup>234</sup> Besides the *Caturvargacintāmaṇi* and *Āyurvedasāyana*, Hemādri wrote<sup>235</sup> the *Hemādrīprayoga*,<sup>236</sup> *Śrāddhapaddhati*,<sup>237</sup> *Tristhalīvidhi*,<sup>238</sup> and a commentary, called *Kaivalyadīpikā*, on Vopadeva's *Muktāphala*.<sup>239</sup>

Vopadeva,<sup>240</sup> a friend and protégé of Hemādri, wrote several works at the encouragement of the latter.

Hemādri describes himself in the *Caturvargacintāmaṇi* as being in charge of the records (sarvaśrīkaraṇaprabhu) of Mahādeva (1260 or 1261–1271),<sup>241</sup> one of the Yādava kings of Devagiri.<sup>242</sup> He is referred to in the colophons as samastakaraṇādhiśvara of Mahādeva and as a very learned man (sakalavidyāviśārada).<sup>243</sup>

The introductory verses of the *Āyurvedasāyana*, written after the *Caturvargacintāmaṇi*,<sup>244</sup> inform us that Hemādri was at that time in charge of the state records<sup>245</sup> of Mahādeva's successor, Rāmacandra<sup>246</sup> (1271–1309).<sup>247</sup> The Ṭhānā plate of Rāmacandra, dated A.D. 1272, recording the grant of a village to a group of brāhmaṇas, makes mention of Hemādri in the same sense, namely as the foremost minister and as the one in charge of the state records.<sup>248</sup>

Hemādri is described as a pious man who fed daily a number of brāhmaṇas. He was not only a man of learning himself, but also a generous patron to scholars. His name has remained popular in the Marāṭha country, where he is remembered as Hemādpant and associated with numerous temples of a particular style, called Hemādpantī. He is, rightly or wrongly, said to have introduced the Moḍī form of writing, current in Mahārāṣṭra.<sup>249</sup>

The Hemādri who wrote the *Lakṣaṇaprakāśa*<sup>250</sup> is different from the author of the *Caturvargacintāmaṇi* and *Āyurvedasāyana*, he was a son of Īśvarasūri and may belong to the fifteenth century.<sup>251</sup>

Probably the same Hemādri, also known as a son of Īśvarasūri, wrote a commentary, called *Raghuvāṇśadarpaṇa*, on Kālidāsa's famous poem.<sup>252</sup>

HIMADATTA or Sarvahitamitradata is sometimes mentioned as a commentator on the *Aṣṭāṅgahr̥daya*.<sup>253</sup>

An anonymous commentary called HṚDAYABODHIKĀ is recorded in some MSS catalogues.<sup>254</sup>

The HṚDYĀ is an anonymous commentary, which mentions the *Aṣṭāṅgasamgraha*, Indu, and (Arunadatta's) *Sarvāṅgasundarī*. It is quoted by Śrīdasapaṇḍita<sup>255</sup> and Parameśvara, and referred to in Śaṅkara's *Lalitā*.<sup>256</sup> N.S. Mooss mentions particular interpretations of the author of the *Hṛdyā*,<sup>257</sup> who is one of the few to admit that Vāgbhaṭa was a Buddhist.<sup>258</sup>

The author of the *Hṛdyā*, who hailed from Kerala, is posterior to Arunadatta and anterior to Vāsudeva, Śrīdāsa's teacher.<sup>259</sup>

INDU was the author of two commentaries with the title ŚAŚILEKHĀ, the one on the *Aṣṭāṅgahr̥dayasamhitā*, the other on the *Aṣṭāṅgasamgraha*.<sup>260</sup> These commentaries are closely related to each other, as can easily be seen when they are compared. The *Śaśilekhā* on the *Aṣṭāṅgasamgraha* follows the wording of that on the *Aṣṭāṅgahr̥daya* wherever both treatises agree with each other. A striking difference between them is the paucity of quotations in the commentary on the *Aṣṭāṅgahr̥daya*, if the references to the *Samgraha* are disregarded.

Authorities and works quoted or referred to in the edited parts of the *Śaśilekhā* on the *Aṣṭāṅgahr̥dayasamhitā*<sup>261</sup> are: <sup>262</sup> Bharadvāja (Sū.1.1), Bhaṭṭārahariścandra (Ka.6.14ab),<sup>263</sup> Bhaṭṭāraka (Sū.7.45cd–46),<sup>264</sup> Bhoja (Ka.6.5–6), *Cākṣuṣeṇasamhitā* (Ka.6.14ab), Caraka (Sū.1.4cd–5ab; 7.45cd–46; Śā.3.8; Ci.19.28–30; Ka.1.44; 6.11cd–12, 14ab, 29–30ab), carakavidāḥ (Ci.3.60), Kābandhaka (Ka.1.44),<sup>265</sup> Kāśyapa (Ka.1.44),

Kharanāda (Sū.29.32cd–33), *Kharanādasamhitā* (Ka.6.14ab), Kṛṣṇātreyā (Ka.6.14ab), Śālihotra (Sū.3.1), *Samgraha* (often),<sup>266</sup> Skandarākṣita (Sū.23.17),<sup>267</sup> Suśruta (Sū.1.4cd–5ab; 19.85–87; Ka.4.26cd–27ab), suśrutādhyaīnaḥ (Ka.6.14ab), *Vaidehasamhitā* (Sū.23.17),<sup>268</sup> vṛddhavaidyāḥ (Ka.6.14ab), and Vyāsa (Sū.2.27). A quotation from Pārameśvara (Ci.19.98) and one from Aruṇadatta<sup>269</sup> are undoubtedly later interpolations.

Authorities and works quoted or referred to in the commentary on the *Aṣṭāṅgasamgraha*<sup>270</sup> are: Agniveśa (Sū.1.13cd–15), Amara (U.50.109–111), asmadguravaḥ (Sū.9.7–15; Ni.1.8), Ātreya (Sū.17.3; Śā.3.3 and 17), Bharadvāja (Sū.1.2; U.36.8), Bhāṭṭārahariścandra (Ni.2.4),<sup>271</sup> Bhāṭṭārahariścandra's *Kharanādasamhitā* (Ka.8.17; U.50.150–153), Bhāṭṭāraka (Sū.9.7–15; Ni.2.4), Bhoja ([U.31.54–55;] 36.8 [and 9]), Cakṣuṣyeṇa (Ka.8.17), Caraka (Sū.1.16–18; 3.8cd–12ab; 9.7–15; Ni.2.89–102; Śā.3.8; 5.15; Ci.6.43–44; 7.5–8; 10.28; 15.4; Ka.8.17 and 22; U.9.35–37; 43.56), carakagrantha (Ka.8.17), carakavidyaḥ (Ci.4.71–74), *Catuḥṣaṣṭi* (U.15.2), [D]alhana's *Nibandhasamgraha* (U.37.10),<sup>272</sup> Dāruvāhi(n) (Ni.1.19–31; U.1.22; 5.7–8; 40.32–33), Dhanvantari (Sū.36.5; Śā.3.8; 7.23; [U.16.5–6;] U.41.60),<sup>273</sup> [Gayadāsa (U.43.3–4),]<sup>274</sup> *Hṛdaya* (Sū.7.107–110; Śā.3.37; Ka.4.39), Janaka (U.17.7; 40.34), Jātikarṇa ([U.36.9;] 40.29–31), Jejjāṭa<sup>275</sup> ([Ni.2.3;] Ci.9.50 and 51–52; 23.40–42;<sup>276</sup> [U.30.79 and 80; 38.2–6a;] 39.35; [42.8 and 101–106; 43.3–4;] 46.83; [49.115 and 116; 50.2 and 18];), Kapilabala (Sū.20.17), [Kairālī (U.8.40, 57, 58, 59, 60),]<sup>277</sup> *kāmasāstra* (U.50.130),<sup>278</sup> Kapilabala (Sū.20.18), Kāśyapa (U.37.7; 48.72), Kauṭilya (Sū.8.25cd–31; U.40.83), Khaṇḍakāpya (Śā.3.5), *Kharanāda(samhitā)* (Sū.1.16–18 and 19; Ka.8.17; U.49.309–325; 50.150–153), *Kośa* (Sū.2.17cd–18ab), Kṛṣṇātreyā (Sū.1.16–18, twice; Ka.8.17), [Nandin (U.43.3–4),]<sup>279</sup> Nimi (U.15.2), Parāśara (Sū.1.16–18; 17.26; 21.14–17), Pāthyakāra (U.8.59),<sup>280</sup> [*Prabandhasamgraha* (U.43.3–4; 44.77),]<sup>281</sup> Puṣkalāvata (U.30.11), *Rājanighaṇṭu* (U.43.56),<sup>282</sup> [Sārakṛt (U.38.55),]<sup>283</sup> Śaunaka (Ci.3.64cd–65), [Surasavīra (U.43.3–4),]<sup>284</sup> Suśruta (Sū.1.13cd–15, 16–18, 21–22; Śā.2.15; 7.20; Ci.21.22–25; Ka.8.17; U.2.24 [; 30.85–86; 43.3–4]), *Suśrutatīkā* ([U.40.75; 42.90–94;] 50.109–111), Urabhra (U.36.8), Uśanas (U.70.88), Vāgbhaṭa (Sū.1.16–18; 17.26–28; Śā.6.37–38; Ka.8.17), *Vaidehīsamhitā* (Sū.32.14),<sup>285</sup> [Varāha (U.43.3–4),] *vāstuvidyā* (Sū.3.111cd–112), Vātsyāyana (U.50.131), Viśvāmitra (U.44.2), *Vṛddhakāśyapa* (U.36.8), and vṛddhavaidyāḥ (Ka.8.17).

The *Kāśikāvṛtti* is quoted anonymously (Sū.6.8–11ab). The verses on paribhāṣā at the end of the commentary on the *Kalpasthāna*<sup>286</sup> refer to the views of Bhāṭṭārahariścandra in his *Kharanāda(samhitā)* (45), Caraka (24, 25, 27, 40, 55, 58, 61, 70), Dṛḍhabala (25, 26), Kharanāda (45, 47, 80), Kṛṣṇātreyā (5, 50), and Suśruta (17, 21, 79).

Indu is quoted or referred to by Anantakumāra,<sup>287</sup> Hemādri,<sup>288</sup> the author of the *Kairālī* commentary on the *Aṣṭāṅgahrdaya*,<sup>289</sup> Nīlamegha,<sup>290</sup> Nīścalakara,<sup>291</sup> Parameśvara,<sup>292</sup> Śaṃkara,<sup>293</sup> Śrīdāsapaṇḍita,<sup>294</sup> and the author of the *Tantrayukti* and its commentary.<sup>295</sup>

One of the characteristic features of Indu's commentaries consists of the frequent occurrence of strings of synonyms of medicinal plants, obviously taken from some *nighaṇṭu*.<sup>296</sup> P.V. Sharma is convinced that Indu was acquainted with the *Aṣṭāṅganighaṇṭu* and quotes from it, because some of the verses he cites are found

exclusively in that work.<sup>297</sup> The evidence he collected is not conclusive in my view, since the majority of Indu's quotations are definitely not from the *Aṣṭāṅganighaṇṭu*. A considerable percentage of them forms part of the *Dhanvantarīyanighaṇṭu*,<sup>298</sup> which, however, does not solve the problem of Indu's source, as some plants have different names or are not mentioned at all in that work.<sup>299</sup> Some correspondences between Indu's citations and verses occurring in Candranandana's *Madanādinighaṇṭu* are neither persuasive.<sup>300</sup> For these reasons it remains obscure which nighaṇṭu was put to use by Indu, unless he borrowed from more than one.<sup>301</sup>

The two *Śaśilekhās*, in particular the one on the *Aṣṭāṅgasamgraha*, are replete with information on Vāgbhaṭa's materia medica. The *Śaśilekhā* on the *Aṣṭāṅgahrdaya* is richer in this respect than Aruṇadatta's commentary. Indu almost never omits to mention one or more synonyms of items of the materia medica occurring in Vāgbhaṭa's works. His interpretations disagree with those by Aruṇadatta in many cases.<sup>302</sup> Valuable are his elucidations concerning plants and other medicinal substances.<sup>303</sup> Vernacular names are also given,<sup>304</sup> in particular those current in Kāśmīr.<sup>305</sup> Other regions to which he refers are Madhyadeśa,<sup>306</sup> Śakadeśa,<sup>307</sup> Southern India,<sup>308</sup> and Uttarāpatha.<sup>309</sup> Some of his identifications are particularly interesting.<sup>310</sup>

Indu makes some noteworthy remarks about the thirty-six types of diarrhoea (atisāra), which may occur as a complication (vyāpad) of a treatment with clysters.<sup>311</sup> Important is his characterization of a disorder called pramīlaka, amlapitta, orpittaviṣcīkā.<sup>312</sup>

The *Śaśilekhā* on the *Aṣṭāṅgasamgraha* (ad U.37.35) contains a rather long series of verses, quoted from an unknown source, on diseases of the feet and some other disorders, together with their treatment. The disorders dealt with are vipādīkā, kaṇṭakavedha (wounds by sharp thorns), pādādāha (burning feet), pārṣṇivyathā (painful heels), dehasphuṭana (a cracking skin), atisveda (excessive perspiration), dehadaurgandhya (a bad bodily smell), and vaidyutānaladāha (burns in persons struck by lightning).

Grammar is not one of Indu's favourite subjects,<sup>313</sup> which makes his *Śaśilekhā* on the *Aṣṭāṅgahrdaya* quite distinct from Aruṇadatta's commentary. Technical terms derived from philosophy are rarely used.<sup>314</sup>

Interpretations by predecessors, whether commentators on Vāgbhaṭa's works or on the *Caraka-* and *Suśrutasaṃhitā*, are repeatedly referred to or quoted.<sup>315</sup> In general, Indu does not borrow extensively from Candranandana, but occasionally he may be indebted to him.<sup>316</sup>

Variants of Vāgbhaṭa's text are mentioned,<sup>317</sup> as well as differences between the *Aṣṭāṅgahrdaya* and *Aṣṭāṅgasamgraha*.<sup>318</sup>

Very important is a series of 119 verses, appended to the end of the commentary on the Kalpasthāna of both *Aṣṭāṅgahrdaya* and *Aṣṭāṅgasamgraha*. These verses deal with technical rules (paribhāṣā) on the preparation of medicines, in particular on the intricate subject of the ratios of the ingredients of compound drugs. They are borrowed from an unknown source<sup>319</sup> and are mainly based on views expounded by Caraka, as declared by Indu in his introductory remarks. Divergent opinions of other authorities are repeatedly referred to.

The verses on paribhāṣā of Indu's commentaries were edited separately, translated

into English, and annotated by N.S. Mooss,<sup>320</sup> who expressed as his opinion that Indu possessed a thorough knowledge of traditional practices prevalent in Kerala. This view need not be endorsed, as Indu merely refers to practices adopted by some physicians, without specifying a particular region.<sup>321</sup>

Indu is one of the few commentators who accept Vāgbhaṭa's syncretistic attitude and do not cloak the Buddhist elements in his works. His remarks on 'worship of the deities' (daivatapūjā; A.h.Ci.1.177) mention, as examples of these deities, not only Hari and Hara, but also Āryāvalokita, Āryatārā, Parṇasabarī, and Aparājitā.<sup>322</sup> Indu reads Jina and Jinasuta in a verse of the *Aṣṭāṅgahrdaya* (Ci.19.98), where these names are suppressed by Aruṇadatta and many editors, who replace them by Śiva and Śivasuta.<sup>323</sup> He interprets Jina as the Buddha, Jinasuta<sup>324</sup> as Avalokiteśa and other deities.<sup>325</sup> Neither is Tārā passed over in silence, as in Aruṇadatta's commentary; she is recognized as a Buddhist deity.<sup>326</sup>

Indu argues that Ratnaketu (A.s.U.1.19) is a Buddhist dhāriṇī. He was also acquainted with the Māyūrī (A.s.U.1.19).<sup>327</sup>

Indu's own religion may have been a mixture of Hinduism and Buddhism, as is suggested by his naming both Manu and Buddha as the founders of a hitopadeśaśāstra, which delivers from undesirable states of mind caused by rajas and tamas.<sup>328</sup> On the other hand it should be noticed that the maṅgalas of his commentaries are of a Hindu type.<sup>329</sup>

Next to Indu, the commentator on Vāgbhaṭa's works, an author of the same name, who composed a nighaṇṭu,<sup>330</sup> is known from quotations in Bhānuji Dīkṣita's commentary on the *Amarakoṣa*,<sup>331</sup> Jñānavimalagaṇi's commentary on Maheśvara's *Śabdabhedaprakāśa*,<sup>332</sup> Kṣīrasvāmin's commentary on the *Amarakoṣa*,<sup>333</sup> Mallinātha's commentary on the *Amarakoṣa*,<sup>334</sup> Nārāyaṇa Vidyāvinoda's commentary on the *Amarakoṣa*,<sup>335</sup> Śivadatta's auto-commentary on the *Śivakoṣa*,<sup>336</sup> and Śrīvallabhagaṇi's commentary on Hemacandra's *Nighaṇṭuśeṣa*.<sup>337</sup>

N.N. Das Gupta<sup>338</sup> may have been the first to suggest that the commentator and the lexicographer of the same name are one and the same person. The only grounds adduced by N.N. Das Gupta are the medical nature of the commentaries and the nighaṇṭu, combined with the fact that Indu is not a commonplace name amongst medical writers. Some later authorities tend to accept the proposed identity, basing themselves on the anonymous definitions of a pharmacopoeial nature, obviously quoted from some nighaṇṭu, in Indu's commentaries.<sup>339</sup>

The identity is rejected by P.V. Sharma<sup>340</sup> for chronological reasons. The lexicographer, quoted by Kṣīrasvāmin in the eleventh century, should be distinguished from the commentator who, in P.V. Sharma's view, belongs to the thirteenth century.

There are, however, more compelling grounds for regarding the lexicographer as entirely different from the commentator. The quotations from a nighaṇṭu in the commentaries are, to be sure, not from a single, identifiable medical lexicon. Since these citations agree in a large number of cases with the *Dhanvantarīyanighaṇṭu*, it seems reasonable to assume that the commentator Indu did not compose a nighaṇṭu himself, which would otherwise certainly have been used in his interpretations of Vāgbhaṭa's texts. Another argument for discarding the identity is furnished by the absence of agree-



ments between the quotations from the *Indunighaṇṭu* and those found in Indu's commentaries. The verses cited as coming from the *Indunighaṇṭu* do not form part of the *Dhanvantarīyanighaṇṭu* or *Aṣṭāṅganighaṇṭu*, which indicates that this *Indunighaṇṭu* is distinct from Indu's source or sources in his commentaries. Consequently, the identity of the lexicographer and the commentator can be maintained only on the assumption that Indu wrote a nighaṇṭu after completing his commentaries, and, moreover, if the chronological position of the *Indunighaṇṭu* does not conflict with that of the *Śaśilekhā*s.

The earliest quotations from the *Indunighaṇṭu* occur in Kṣīrasvāmin's *Amarakoṣodghāṭana*, which dates from the first half of the twelfth century,<sup>341</sup> which implies that the former cannot be earlier than the second half of the eleventh century.

The hypothesis, also formulated for the first time by N.N. Das Gupta,<sup>342</sup> that Indu, the commentator, may prove to be identical with Indukara, the father of the Mādhava who wrote the *Mādhavanidāna*, is not based on any evidence, and was rightly rejected by D.Ch. Bhattacharyya,<sup>343</sup> because Indukara and Mādhava were residents of Bengal, whereas Indu was a native of Kāśmīr.

The Indian tradition makes Indu a direct pupil of Vāgbhaṭa. This tradition, in particular current among the physicians of Kerala, alleges that Vāgbhaṭa, accompanied by his favourite pupils Indu and Jejjāta, came to Kerala in order to spend the latter part of his life there.<sup>344</sup> A salutatory verse in the introductory portion of Nīlamegha's *Tantrayuktiivācāra* refers to Indu and Jejjāta as disciples of Vāgbhaṭa.<sup>345</sup>

Indu's references to Vāgbhaṭa as ācārya<sup>346</sup> have been interpreted as pointing in the same direction,<sup>347</sup> in spite of the fact that it is common practice among commentators to mention well-known ancient authorities in this way.<sup>348</sup>

In my opinion, it is very unlikely that Indu studied with Vāgbhaṭa himself,<sup>349</sup> because Indu observes, in the introduction to both versions of the *Śaśilekhā*, that Vāgbhaṭa's words had become obscured by bad commentaries, which led him to write a new one. At least one generation of commentators must therefore have preceded Indu. One should also remember that Indu cites Jejjāta, which excludes his being a contemporary.

The identity of Indu's teacher, to whom he refers as my guru, remains unknown.<sup>350</sup>

Indu's date is a problematic issue for several reasons, one of these being the unsatisfactory editions of his commentaries. The editions available, in particular those of the *Śaśilekhā* on the *Aṣṭāṅgasamgraha*, present a large number of passages between brackets, which probably indicate interpolations.<sup>351</sup> Other parts, not placed between brackets by the editors, should also be regarded as not belonging to the original text, since they derive from works by authors who are definitely posterior to Indu. A study of the quotations from Indu in later commentaries might throw some more light on the genuine text of the *Śaśilekhā*s.

Indu's chronological position is elucidated by his quoting Jejjāta, who lived in the seventh or eighth century. Important too are the quotations from the *Dhanvantarīyanighaṇṭu*, dating from the period A.D. 1000–1100, although it should be taken into consideration that this work is not mentioned by name, which means that Indu may quote from an early version of it, or from some other lexicon. The most important clue to his date consists of the citations from the *Indumatī* in Nīśalakara's *Ratnaprabhā*,

which can for the larger part be traced in the *Śaśilekhā* on the *Aṣṭāṅgasamgraha*.<sup>352</sup>

The collected evidence establishes that Indu lived before the latter half of the twelfth century. The terminus post quem is provided by the quotations from Jejjata and the *Dhanvantariyanighaṇṭu*, the terminus ante quem by Niścāla's references.<sup>353</sup> Some authors prefer placing Indu much later. P.V. Sharma<sup>354</sup> makes him belong to the thirteenth century, being convinced that he quotes the *Medinīkoṣa*,<sup>355</sup> a lexicon dated by him to the twelfth century.<sup>356</sup> In addition, P.V. Sharma regards a quotation by Hemādri as an indication that Indu is posterior to Aruṇadatta.<sup>357</sup> Finally, he supposes that Maheśvara's *Viśvaprakāśa*, dating from the beginning of the twelfth century,<sup>358</sup> influenced Indu.<sup>359</sup>

Indu's native country was in all probability Kāśmīr; the numerous references to this country and the local names of medicinal plants current there are strongly in support of this.<sup>360</sup>

ĪŚVARASENA is sometimes regarded as a commentator on the *Aṣṭāṅgaḥṛdayasaṃhitā*.<sup>361</sup>

JEJJATA is sometimes regarded as a commentator on the *Aṣṭāṅgaḥṛdayasaṃhitā*.<sup>362</sup>

The KAIRALĪ is an elaborate commentary on the Uttarasthāna of the *Aṣṭāṅgaḥṛdayasaṃhitā*.<sup>363</sup> Other parts of the treatise are not covered, as stated by the author himself in the introductory verses.

The author quotes many earlier works and authorities, but also expresses his own opinion on diverse subjects.<sup>364</sup>

The metres employed by Vāgbhaṭa are indicated in a number of instances.<sup>365</sup> Variants of the text are occasionally recorded.<sup>366</sup>

The Buddhist elements in Vāgbhaṭa's work are sometimes accepted as such,<sup>367</sup> sometimes re-interpreted in agreement with Hindu views.<sup>368</sup>

The author's main authority on the identity of medicinal substances and their names is obviously the *Mañjarī*, i.e., Bhiṣagārya's *Abhidhānamañjarī*, which is profusely quoted. No studies are available on the other sources of the *Kairālī*. A superficial examination shows that there are numerous disagreements between the *Kairālī* and Aruṇadatta's *Sarvāṅgasundarā* on the identity of medicinal plants.<sup>369</sup> It may well be that the author of the *Kairālī* was mostly influenced by earlier commentators who lived in Kerala. The Malayāḷam names of diseases and medicinal substances are not infrequently recorded.<sup>370</sup>

Authorities and works quoted or referred to are: Agniveśa (40.60–62 and 65–66), Ālambāyana (35.16, 20, 45ab), Amara (fifteen quotations), Aruṇadatta (1.13ab and 26ab; 6.5cd–6; 9.40ab; 10.1–2ab and 5; 11.38ab; 13.31–32; 23.32; 25.57cd–58ab; 28.37; 30.32; 33.1–5ab, 19, 27cd–28; 35.7cd–8ab; 36.90–92; 40.25, 30cd–31ab, 37, 48–58, 59), Ātreya (34.44cd–49ab; 40.59; 40.60–62; Punarvasu Ātreya; 40.78–80),<sup>371</sup> Bhāradvāja (31.8), Bheḍa (40.59 and 88), Bhoja (21.39ab; 26.50cd–52ab; 28.1–4, 6, 17cd–18ab; 31.3, 8, 9ab), Caraka (1.5; 4.43; 6.1cd–2ab; 7.37; 17.6cd–7ab; 23, intr.; 23.1–3 and 3d–7c; 24.60; 33.1–3, 4–7, 12–15ab; 39.55–56; 40.12ab, 83, 84, 88),

*Catuṣṣaṣṭi* (12.1; 16.63cd–64),<sup>372</sup> Cyavana (39.39), Daṇḍanātha (1.8), Dhanvantari (about sixty quotations),<sup>373</sup> *granthāntara* (5.54cd), Hārīta (40, intr.), *Hiraṇyākṣīya* (1.11cd–13b), Indu (1.11cd–13ab; 5.46cd–47ab, 52, 54ab; 6.2–5; 8.21–22 and 24; 10.1–2ab, 10ab, 10cd–11; 11.12c and 49ab; 12.1 and 6–7ab; 13.20–22; 15.6–7ab; 16.44–45; 21.1–3ab and 37–38ab; 23.3d–7c; 24.18; 31.2cd; 33.1–5ab; 36.93; 37.14cd and 20; 40.32cd), Jajjāṭa<sup>374</sup> (39.97–98ab; 40.1–2ab, 36, 38, 39–40), Jatūkarma (31.9ab; 40.59 and 88), *Kāmasūtra* (33.1–5ab; 40.41), Kāśyapa (32.5cd–6a), Keśava (5.42cd–43ab; 29.2cd–3; 32.9–10),<sup>375</sup> Kṣārapāni (25.23), laukikāḥ (6.1cd–2a), *Mañjarī* (1.9 twice; 1.13; 2.38; 11.36; 13.44, 45, 54–55ab; 13.58–59ab, twice; 13.64cd–65; 16.12, 24, 51cd–52, 55; 18.8–10ab, 12, 26cd–30ab, 55cd–58; 20.5cd–7ab; 21.12cd–13ab; 22.65–67 and 88–89; 24.24–25ab; 24.50cd–57ab, twice; 25.48 and 61; 27.12cd–16ab; 28.40; 30.38; 32.3, 9–10, 16, 22, 26, 33, intr.; 33.1–5ab; 37.13ab; 40.14, 32cd, 48–58),<sup>376</sup> Nagnajit (35.16cd), *Nānārthārhavasamkṣepa* (40.1–2ab),<sup>377</sup> Nimi (8.21–22, twice; 9.17cd–18a; 10.12, 21cd–22ab, 24; 11.14–18 and 25cd–27; 12.1; 13.14cd–16ab and 33; 22.26; 30.30), Pāthyakāra (1.9ab; 5.54cd; 9.11cd–13ab and 20; 13.37; 18.20cd–21; 22.90–94; 27.16ab),<sup>378</sup> Punarvasu (35.16cd),<sup>379</sup> Puṣkalāvata (26.22ab and 50cd–52ab), *Ratirahasya* (33.27cd–28, 32, 49), *Samgraha* (very often), Sārakṛt (1.1; 13.66; 19.1–3ab; 26.46cd–47; 30.10cd and 32; 33.50),<sup>380</sup> śāstrāntara (1.7cd–8a; 8.1–2; 10.26; 11.36–37ab and 51ab; 13.48ab; 18.50cd–51ab; 21.35cd; 22.108–109; 23.12–15ab; 26.6 and 31; 27.12cd–16ab; 28.1–4; 29.12–13, 18cd–19, 22, 23–25; 30.8cd–9; 31.25cd–26ab; 32.33;<sup>381</sup> 33.14cd–15ab; 35.3 and 16cd),<sup>382</sup> *Sauśruta* (often), Śreṣṭhādatta (31, intr.),<sup>383</sup> Suśruta (often), *tantrāntara* (2.34cd–35ab; 8.1–2; 22.50cd; 26.4ab), Urabhra (31.8), Vaideha (16.63cd–64,<sup>384</sup> 35.16cd),<sup>385</sup> *Vaijayanti* (31, intr.), Vaitaraṇa (36.16cd–17), Vāmadeva (8.15; 11.14–18; 26.22ab), Videhādhipa (13.26–27),<sup>386</sup> and *Vṛddhakāśyapa* (31.8).

A Malayālam commentary is also quoted (13.66).

One of the anonymous quotations is from Anantakumāra's *Yogaratanasamuccaya*.<sup>387</sup>

The quotations from the *Kairālī* in Indu's *Śaśilekhā* are without any doubt interpolations.

The editor of the *Kairālī* asserts that it was written by a physician who belonged to one of the aṣṭavaidyā families of Kerala and was born in Panasāndolikā.<sup>388</sup> Some claim that Plāntōḷ Mūs was its author,<sup>389</sup> which is improbable,<sup>390</sup> unless there were two authors of this name.<sup>391</sup>

The quotations from Keśava's *Kalpadrakoṣa*, the longest synonymic lexicon of Indian literature, composed in A.D. 1660/61,<sup>392</sup> prove that the *Kairālī* cannot be earlier than the end of the seventeenth century.

KRṢṆASENAMALLIKA wrote a commentary called VĀGBHAṬĀRTHAKAUMUDĪ.<sup>393</sup> This commentary is quoted in the footnotes to Kuṇṭe and Navre's edition of the *Aṣṭāṅghaḍayasaṃhitā*.<sup>394</sup>

MANGALAGIRI SŪRI, of Gelavaṅgala family and Ātreya gotra, son of Jagannātha, is regarded as a commentator on the *Aṣṭāṅghaḍaya*<sup>395</sup> by B. Rama Rao. He wrote a commentary, called *Sarvāṅgasamjivani*, on a *Kalpasthāna*, which B. Rama Rao sup-

poses to be the Kalpasthāna of the *Aṣṭāṅgaḥṛdaya*. More probably, this Kalpasthāna is Bharadvāja's *Bheṣajakalpa*, also called *Bheṣajakalpasthāna*, because Maṅgalagiri is known as a commentator on the *Bheṣajakalpa* and Bharadvāja's *Rasapradīpikā*. A medical treatise by Maṅgalagiri with the title *Sūtrasthāna* is, as born out by its contents, not a commentary on Vāgbhaṭa's *Sūtrasthāna*.<sup>396</sup>

MANODAYĀDITYABHAṬṬA is recorded as the author of a commentary called MANODAYĀDITYABHAṬṬĪYA.<sup>397</sup> This author may be identical with Udayāditya.

NARAHARI(BHAṬṬA), also called Bhaṭṭanarahari and Nṛsiṃhakavi, was the author of the *Vāgbhaṭamaṇḍana* or *Vāgbhaṭakhaṇḍanamāṇḍana*.<sup>398</sup>

This treatise, written in defense of Vāgbhaṭa and his *Aṣṭāṅgaḥṛdaya*, refutes the charges levelled against this famous author and his work by someone called Sauravidyādhara. The views of opponent and defender are expounded and quotations from numerous earlier authorities serve to support the arguments.

No information is available on Sauravidyādhara, who may have criticized Vāgbhaṭa in writing<sup>399</sup> or in a public debate, probably with Nṛsiṃhakavi.

The *Vāgbhaṭamaṇḍana*, composed in prose, is divided into twenty-eight chapters (prakaraṇa). The prose is preceded by seven introductory verses; the work ends with eight concluding verses. Many chapters (1–8, 10–11, 13–15, 19, 22–23, 26–27) end with a verse in praise of Vāgbhaṭa; stanzas depreciating Sauravidyādhara and eulogizing Vāgbhaṭa are interspersed among the prose of a number of chapters.

The māṅgala is addressed to Śiva.<sup>400</sup>

Each chapter opens with Vidyādhara's objections against a particular point of view found in the *Aṣṭāṅgaḥṛdaya* and the arguments adduced in support of these criticisms. Narahari then engages in a polemic with his opponent, exposes his own opinions, and turns down the criticisms, defending Vāgbhaṭa by a wealth of quotations.<sup>401</sup>

The verses of the *Aṣṭāṅgaḥṛdaya* which are under attack and discussed by both parties are: Sū.1.1 (ch.1); 3.7cd–8ab (ch.2); 3.26cd–27ab (ch.3); 3.30 and 3.32cd–33ab (ch.4); 3.55cd (ch.5); 5.24 (ch.6); 6.8ab (ch.7); 7.48 (ch.8); 7.73 (ch.9); 7.52 (ch.10); 9.20 (ch.11); 12.19cd–22ab, 24cd, 25cd–26ab, 22cd (ch.12); 13.33cd–34ab (ch.13); 13.37–41 (ch.14); 14.31cd–33 (ch.15); 16.15cd–16ab and 29cd–30ab (ch.16); 18.13–18ab (ch.17); 19.18–19 (ch.18); 26.1 (ch.19);<sup>402</sup> Śā.1.1 and 2 (ch.20); 2.53 and 3.16ab (ch.21); 3.83–104 and 1.32 (ch.22);<sup>403</sup> Nī.1.2 and 5ab (ch.23); 2.50–51 (ch.24); 11.32cd (ch.25); U.28.5cd (ch.26);<sup>404</sup> Ci.1.1 (ch.27);<sup>405</sup> Ka.1.1 and U.1.1 (ch.28).<sup>406</sup>

Authorities and works quoted or referred to are:<sup>407</sup> *Abhidhāna* (25,<sup>408</sup> 87),<sup>409</sup> *ācārya*,<sup>410</sup> *Agniveśa* (64, 107), *Amarakośa* (87), *Aruṇadatta* (6, 9, 68), *asmadvāgbhaṭīyanibandhana* (86), *Aṣṭāṅgaḥṛdayadīpikā* (56), *Ātreya* (10, 40),<sup>411</sup> *Bhagavadgītā* (3, 4, 5, 6), *Bhāluki* (74, 75), *Bhāṣyakāra* (101),<sup>412</sup> *Bhāṣyakṛt* (85),<sup>413</sup> *Bhaṭṭa* (4, 5, 11, 17, 33, 40, 76, 92, 113),<sup>414</sup> *Bhaṭṭāra(ka)hariścandra* (30, 52, 55, 65, 89, 94, 102, 106),<sup>415</sup> *Bhāvya* (76),<sup>416</sup> *Bheḍa* (21, 66, 114), *Bhogīśvara* (46, 51, 58, 84),<sup>417</sup> *Bhoja* (27, 32, 66, 68, 74, 75, 81), *Bopadeva* (6, 12), *(Brahmasūtra)* (6), *(Bṛhadāraṇyakopaniṣad)* (3), *(Cakradatta)* (11), *Caraka* (passim), *Cikitsāsiddhānta* (41), *Candrikā* (106),<sup>418</sup> *(Dālhaṇa)* (26), *Dhanvantari* (7, 43, 44, 45, 52, 58, 59, 68),<sup>419</sup> *Dṛḍhabala* (2, 13, 65,

66, 67, 69, 73, 96, 99, 100, 107), Gajakhaṇḍikā (70),<sup>420</sup> Gayadāsa (11, 24, 40, 41, 45, 49, 50, 52, 75, 76, 85, 86, 87, 93), Hariścandra (56),<sup>421</sup> Hārīta (70, 95, 96), Hemādri (86), Īśvarasena (106), Jaimini (17, 33, 44), Jatūkarna (103, 104), Jaijñāta/Jejñāta (26, 36, 39, 50, 52, 71, 75, 76, 85, 86, 97, 102, 111), *jyotiḥśāstra* (56), Kaiyata (85), Kālidāsa (7, 81), Kapila (55), Kārttikakuṇḍa (97), Kāśyapa (36), (*Kaṭhapaniṣad*) (3), Kharanāda (56, 61, 74, 81, 82, 85, 87, 89, 92, 101, 103, 104, 106, 111, 113), Kṣārapāṇi (85), (*Kūrmapurāṇa*) (4), Mādhavakara (97), (*Mahābhārata*) (81), *Mahābhāṣya* (85), (*Mṛcchakaṭikā*) (17), (*Muṇḍakopaniṣad*) (4), nāgā'junīyāḥ (71, 72, 85), *Nibandhasaṃgraha* (111, 112), (*Pañcadaśī*)<sup>422</sup> (5), Parāśara (28, 30, 70, 71, 95, 98), Punarvasu (61, 70),<sup>423</sup> Punarvasu Ātreya (64),<sup>424</sup> Phaṇidhara (58),<sup>425</sup> Phaṇīśvara (57, 78),<sup>426</sup> (*R̥gveda*) (8), Sahasraphaṇin (58),<sup>427</sup> Śālihotra (56), *Samgraha* (7, 81), Suśruta (passim), suśrutanibandhaḥ (39), *Taittirīyaśākhā* (56), (*Taittirīyasaṃhitā*) (17), *Tantrasāra* (14), Vāgbhaṭa (passim), *Vāgbhaṭaṭikā* (33, 37, 56, 93), Vāpyacandra (28, 65, 89, 97), Vidyādhara (passim),<sup>428</sup> *Vṛddhasuśruta* (32), *Vṛddhavāgbhaṭa* (65, 93, 94), and Vyāsa (16, 81).

Nṛsiṃha defends Vāgbhaṭa against the accusation of being sympathetic to Buddhism.<sup>429</sup>

The author calls himself Nṛsiṃhakavi in the concluding verses of his work.<sup>430</sup> The name of his father was Bhaṭṭaśiva,<sup>431</sup> of Haritavaṃśa, who is described as a great scholar in all branches of learning. Nṛsiṃha's teacher was Rāmakaṇṭhīśvara, a jewel among those conversant with tarka and tantra.<sup>432</sup> Another person, whose blessing is invoked, is Viṭṭhalapaṇḍita, praised as well acquainted with Caraka, Suśruta and the *Aṣṭāṅgasamgraha*.<sup>433</sup>

Nṛsiṃha also wrote a commentary, called *Dīpikā*, on the *Aṣṭāṅgaḥṛdayasaṃhitā*. This commentary is referred to in the *Vāgbhaṭamaṇḍana*.<sup>434</sup>

The latest authorities quoted by Nṛsiṃhakavi are Hemādri and Vopadeva, who lived in the second half of the thirteenth century. The author's terminus ante quem cannot be determined with any certainty. K.R. Śrīkaṇṭhamūrti is inclined to assign him to the fifteenth century, because Bhāvamīśra's *Bhāvaprakāśa*, popular in the sixteenth century, is not referred to.<sup>435</sup>

A commentary called PAÑCIKĀ, written by an author from Kerala, is quoted by Śrīdāsa in his *Ḥṛdayabodhikā* and therefore earlier.<sup>436</sup>

An anonymous PADĀRTHACANDRIKĀPRABHĀ is recorded by A. Rahman.<sup>437</sup>

PARAMEŚVARA wrote a commentary called VĀKYAPRADĪPIKĀ,<sup>438</sup> which probably covered all the sections of the *Aṣṭāṅgaḥṛdayasaṃhitā*.<sup>439</sup>

The *Vākyapradīpikā* on the *Sūtrasthāna* is written in a simple and lucid style. Authorities and works quoted or referred to are: *Āgama* (21.12; 22.6ab), (*Ā*)lambāyana (1.2), Amara (19.84), Amarasiṃha (28.31cd), Aruṇadatta (21.7cd–8ab; 23.16cd–17ab),<sup>440</sup> asmadguravaḥ (23.16cd–17ab),<sup>441</sup> Ātreya (maṅgala; 1.2), *Bhālukīya* (26.5), Bharadvāja (1.2), Bhoja (26.7), Caraka (7.31), Dāsapaṇḍita (27.14–16ab),<sup>442</sup> dhānvantariyāḥ (26.46cd–47; 29.7), Hārīta (1.2), Hātaka (23.16cd–17ab and 30cd–31ab;

26.6–7ab, 45cd–46ab, 54–55ab; 27.16cd–18ab), *Hṛdyā* and *Hṛdyākāra* (20.20–21ab and 23cd–24; 21.17cd–18; 22.3cd–4; 23.5–6, 8–9, 16cd–17ab, 19, 30cd–31ab; 25.35cd; 26.28cd–29ab; 27.1–2ab and 12–13),<sup>443</sup> *Indu* (26.1–4), *Kāśyapa* (1.2), *Kṣārapāṇi* (1.2), *Nimi* (1.2; 20.20–21ab), *Pāṭhya* and *Pāṭhyakāra* (6.106; 26.1–4, 13cd–15, 18, 38; 28.6ab),<sup>444</sup> *Samgraha* (often),<sup>445</sup> *Sāralcṛt* (26.16cd–17ab and 20–22ab; 30.50cd–52),<sup>446</sup> *śāstrāntara* (26.36), *śruti* (1.1), *Sundarī* (25.35cd; 26.1–4),<sup>447</sup> *Suśruta* (1.8.; 16.29; 30.8cd–20ab), *tantrāntara* (23.15–16), *tantrāntarīyāḥ* (19.38cd–41ab), *Vyākhyāsāra* (23.16cd–17ab and 22; 24.4–5 and 6cd–8; 25.1–2),<sup>448</sup> *Vyāsa* (2.27), and *Yogaśāstra* (2.1cd–3).

Occasionally, Parameśvara gives the Malayāḷam equivalents of technical terms and names of medicinal plants.<sup>449</sup> The author's views on the identity of medicinal plants are frequently referred to by N.S. Mooss.<sup>450</sup> Parameśvara often agrees with the author of the *Pāṭhya*, but, occasionally, his opinions are at variance.<sup>451</sup>

Parameśvara regards the apūrvavaidya of the opening verse of the *Aṣṭāṅghṛdaya* as Maheśvara, but also considers the possibility that Buddha is meant and that the author was a Buddhist.

The colophons inform us that the author, dvijottama Parameśvara,<sup>452</sup> lived in Aśvatthagṛāma<sup>453</sup> on the banks of the river Nīlā. Another commentator on the *Aṣṭāṅghṛdayasaṃhitā*, Vāsudeva, lived in the same village.

Parameśvara is dated to a period somewhat later than about A.D. 1425 (Kolamba 600) by N.S. Mooss, who assumes that he wrote his commentary after the composition of Vāsudeva's *Anvayamālā*, which work would have been superfluous if the *Vākyapradīpikā* had already been available.<sup>454</sup>

A quotation from Parameśvara in Indu's *Śaśilekhā* on the *Aṣṭāṅghṛdaya*<sup>455</sup> should be regarded as an interpolation.

The PĀṬHYA is an anonymous Sanskrit commentary.<sup>456</sup>

The author of this work, the *Pāṭhyakāra*, is quoted in the *Kairālī*,<sup>457</sup> Parameśvara's *Vākyapradīpikā*,<sup>458</sup> Śrīdāsa's *Hṛdayabodhikā*,<sup>459</sup> in a footnote of Kuṇṭe and Navre's edition of the *Aṣṭāṅghṛdayasaṃhitā*,<sup>460</sup> and in N.S. Mooss's notes on Vāgbhaṭa's gaṇas.<sup>461</sup> A commentary called *Pāṭhyā* is referred to in Saṃkara's *Lalitā*.

The author of the *Pāṭhya* is earlier than Śrīdāsa and the latter's teacher, Vāsudeva.<sup>462</sup> V. Raghavan<sup>463</sup> claims that it is the oldest of the commentaries written in Kerala and that it inspired many later commentators.<sup>464</sup>

RĀMANĀTHA wrote a commentary (tīkā) on the *Aṣṭāṅghṛdaya*.<sup>465</sup>

This author wrote a large number of commentaries on medical treatises,<sup>466</sup> some of which date from the later parts of the seventeenth century, which establishes that he cannot be earlier than the eighteenth century.

RĀMĀNUJĀCĀRYA of the Śukavata family is recorded as the author of a Telugu commentary, called *Ānandaīrthā*.<sup>467</sup>

ŚAṂKARA, whose full name was Plāntōḷi (Pulāmantōḷi) Śaṅkaran Mūs,<sup>468</sup> wrote a commentary called *Lalitā*.

The available parts of this simple commentary, said to be elegantly written, but which remains unedited, cover chapters twenty to thirty of the *Sūtrasthāna*.

The author refers to works of predecessors, namely the *Hṛdayabodhikā*, *Hṛdyā*, *Pāṭhya*, *Indu's Śaśilekhā*, and (*Aruṇadatta's*) *Sundarī*.<sup>469</sup>

Śaṃkara was a son of Nārāyaṇa Mūs and a pupil of Nīlakaṇṭha Mūs. The campaigns of Tipu Sultān made him leave his native village and take refuge in Travancore.

Śaṃkara, who belonged to one of the *aṣṭavaidyā* families of Kerala, married, towards the end of the eighteenth century, the heiress of the Vayaskara family, which had no male issue left. The legal procedure adopted for this marriage, called *sarvasvadāna*, made Śaṃkara the owner of all the properties and rights of the Vayaskaras, who were Nambudirī brāhmaṇas, but no *aṣṭavaidyas*. The male descendents of Śaṃkara, however, are both Vayaskaras and *aṣṭavaidyas*.<sup>470</sup>

ŚIVADĀSA (SENA)<sup>471</sup> wrote a commentary, called *TATTVABODHA*,<sup>472</sup> on the *Uttara-sthāna* of the *Aṣṭāṅgahr̥daya*. It is not certain whether or not he also commented on the other sections.<sup>473</sup>

The *Tattvabodha* shows a number of interesting features. Śivadāsa consulted many MSS of Vāgbhaṭa's treatise,<sup>474</sup> and was very keen on finding out the correct readings, which made him record a large number of variants.<sup>475</sup> Some variants are regarded as wrong readings and for that reason rejected.<sup>476</sup>

Śivadāsa refers to earlier commentators<sup>477</sup> and regarded some of them as authoritative.<sup>478</sup> Aruṇadatta's views are sometimes accepted,<sup>479</sup> but more often criticized and dismissed.<sup>480</sup>

Śivadāsa's text of the *Aṣṭāṅgahr̥daya* is repeatedly at variance with the current editions.<sup>481</sup>

The Buddhist elements in Vāgbhaṭa's work are explained away. *Āryāvalokita* (5.50) is interpreted as Śiva; the *Māyūrī* (5.51) is said to be found in the *Atharvaveda*.

The identity of medicinal substances is often discussed. Noteworthy remarks are, for example, those on the identity of *ambasṭhā* (34.46), *brahmasuvarcalā* (39.50), *guḍamañjarī* (40.52), *kākanāsā* (34.42), *uttamakāraṇī* (30.27), and *vārāhīkanda* (39.58).<sup>482</sup> Vernacular names for diseases and medicinal substances are recorded in a number of instances.<sup>483</sup> Interesting terms used are *karakarikā*/*karakārikā*<sup>484</sup> and *piñcodikā*.<sup>485</sup>

Authorities and works quoted or referred to are: Aruṇa (3.44,<sup>486</sup> 47cd, 58; 5.3; 13.66cd–67ab; 22.40cd–42ab; 25.10; 27.24–25ab; 30.27; 34.44cd–45ab), *Bhānumatī* (22.40cd–42ab), *Bhela* (34.6; 40.59), *Bhoja* (21.9cd–10ab, 36, 39ab; 23.24cd–26ab; 29.15; 31.3cd–4ab, 8, 9, 18cd–19ab, 21, 26, 28; 33.19ab), *Brahmadeva* (25.6 and 14; 35.17 and 21), *Cakra* (22.40cd–42ab),<sup>487</sup> *Cakradatta* (18.59cd–66), *Candrāṭa* (5.3; 24.26), *Caraka* (passim), *Carakottaratāntra* (22.40cd–42ab), *Ḍalhaṇa*/*Ḍalvaṇa* (1.11cd–13ab; 5.3; 18.59cd–66; 31.17–18ab; 38.21–22ab, 24ab, 35–36ab), *Dhanvantarinighaṇṭu* (18.20cd; 22.70ab, 82, 91), *Gayadāsa* (22.40cd–42ab; 38.24ab), *Hārīta* (39.130), *Jatukarṇa* (7.19cd–24ab; 16.11; 39.80), *Jejjaḍa* (18.59cd–66), *Karāla* (15.16–17; 18.15cd), *Kārttikakuṇḍa* (22.40cd–42ab), *Madhyavāgbhaṭa* (22.4cd–5ab, 19–20, 46ab, 52, 53–54ab, 58cd–59, 93), *Medinī* (22.40cd–42ab), *Nāgārjuna* (38.3cd–6ab),

*Nighaṇṭu* (13.54cd–55),<sup>488</sup> *Nimi* (10.17cd–18a; 30.30cd–31ab), *Nirghaṇṭa* (1),<sup>489</sup> *Niścāla* (5.18; 13.45; 22.32cd–33ab; 22.91),<sup>490</sup> *Ratnaprabhā* (13.82cd–83ab),<sup>491</sup> *Śālākya* (19, intr.; 24.25cd–27), *Suśruta* (passim), *tantrāntara* (1.9cd–10ab; 3.18cd–20ab;<sup>492</sup> 11.12cd; 16.11; 19.13;<sup>493</sup> 20.22cd–26ab, 27cd; 32.31–33ab; 33.17–18 and 49; 34.44cd–45ab; 39.58 and 98cd–101ab),<sup>494</sup> *Vaidyaprasāra* (15.24), *Videha* (10.3–4ab and 8cd–9ab; 23.16–17; 24.44cd–45), *Vṛddhavāgbhaṭa* (22.37cd–38), and *Vṛndakuṇḍa* (22.40cd–42ab).

ŚRĪDĀSAPANḌITA wrote a commentary, called *Hṛdayabodhikā*,<sup>495</sup> which may have covered the whole of the *Aṣṭāṅgaḥṛdayasaṃhitā*.<sup>496</sup>

The *Hṛdayabodhikā* is a very elaborate and valuable commentary, which reflects the interpretations of Vāgbhaṭa that were current in Kerala. It quotes many predecessors from that region and gives frequently the Malayāḷam equivalents of technical terms and names of medicinal plants.<sup>497</sup> Earlier commentators profusely quoted are Indu, Aruṇadatta, Hātaka, and the authors of the *Hṛdyā*, *Pāṭhya*, and (*Vyākhyā*)*sāra*. Candranandana, however, is completely ignored.

Śrīdāsa is heavily indebted to Aruṇadatta, whose comments are very often borrowed and incorporated literally in the *Hṛdayabodhikā*, without indication of the source. Aruṇa's lengthy exposition on the *tantrayuktis* (ad A.h.U.40.78) is reproduced at the beginning of Śrīdāsa's commentary, which shows the importance he attached to this subject. The text of Aruṇadatta's *Sarvāṅgasundarā* in the printed editions differs sometimes from the text in the *Hṛdayabodhikā*. Śrīdāsa quotes, for example, a series of verses by Aruṇa or quoted by him which are not found in the editions.<sup>498</sup> Occasionally, Aruṇa's interpretations are rejected.<sup>499</sup> Usually, however, Aruṇa is referred to respectfully. The same applies to Indu, with whom Śrīdāsa often agrees and occasionally disagrees.<sup>500</sup>

In a number of instances Śrīdāsa gives his own opinion explicitly, referring to himself as Paṇḍita.<sup>501</sup> These references show that he had his own view on the diseases belonging to the category āgantu<sup>502</sup> and did not always accept the opinion of the author of the *Hṛdyā*.<sup>503</sup> More often he mentions what his teacher, Vāsudeva, thought on a particular subject.<sup>504</sup> This teacher had his own judgments on the correctness of particular readings<sup>505</sup> and interpretations.<sup>506</sup>

The abundance of quotations from earlier authors and works contributes to the value of the *Hṛdayabodhikā*.

Authorities and works quoted or referred to are: *Āgama* (very often), *Āgamatīkā* (Ni.2.3cd–6ab, 56ab,<sup>507</sup> 72–73ab; 10.4; 11.49–51ab), *Agastya* (Sū.1.1), *Agniveśa* (Sū.1.3–4ab), *Agniveśya* (Śā.3.61cd–62ab, 65cd–66ab, 67cd), *Ālambāyana* (Sū.1.1; 5.40), *Amara* (Sū.1.11cd; Śā.6.2; Ni.14.35), *Amaramālā* (Sū.5.37–39),<sup>508</sup> *Amarasiṃha* (Sū.28.26cd–31), *Arthaśāstra* (Sū.2.1cd–3ab), Aruṇadatta (passim),<sup>509</sup> *asmadguravaḥ* (Sū.2.41–45ab; 16.12ab; 23.15cd–16ab and 21; 25.16cd–19; 26.13–14 and 20cd–22ab; 27.28–32; Śā.1.83cd–88ab and 94; 3.27cd, 59, 65cd–66ab, 119; 4.34–35ab, 36cd–37ab, 40ab; 6.47; Ni.1.5cd; 8.15ab; 10.4), *Aṣṭāṅgasamgraha*, *Aśvavaidya* (Sū.1.9cd–10), *Āśvinaśaṃhitā* (Sū.5.21cd–23ab; 6.54), *Ātreya* (Sū.1.3–4ab and 14cd–15ab; Śā.5.127), *Aurabhra* (Sū.5.44–45), *Āyurvedāvātāra* (Sū.5.55; Śā.3.7–



8ab),<sup>510</sup> Bālakāvya (Sū.1.18),<sup>511</sup> Bhāluki (Sū.19.79cd–80ab; 27.34–36ab; 28.19 and 20–21ab; Ni.2.64–65ab and 76cd–78; 5.1–2), *Bhālukīya* (Sū.26.5, 10–11, 22–26, 43cd–46ab), Bharadvāja (Sū.1.1), *Bhāradvājīya* (Śā.3.67cd), *Bhāṣya* (Ni.11.17cd–18a),<sup>512</sup> Bhāṣyakṛt (Śā.1.14cd–16ab),<sup>513</sup> Bhāṭṭārahāricandra (Sū.21.14cd–15),<sup>514</sup> Bheḍa (Sū.1.3–4ab; Śā.5.30cd–31), Bhoja (Sū.3.18–23ab; 5.19 and 35–36ab; 6.88cd–89ab, 93–96ab, 111cd–114ab, 167cd–168ab; 20.5 and 15cd–16; 26.6; 26.10–11, twice; 26.27–29ab; 26.36–37, three quotations; 28.20–21ab, 21cd, 26cd–31; 29.16–18, three quotations; 29.57–59ab; 29.59cd–61, four quotations; 29.62–64, twice; 30.3–8ab and 39; 30.45cd–46, twice; Ni.2.64–65ab), *Bhojarājīya* (Sū.3.11), *Buddhāgama* (Sū.1.1), Cānakya (Sū.7.14–18ab), Candraṭa (Sū.17.4ab), Caraka (passim),<sup>515</sup> Dākara (Sū.5.55),<sup>516</sup> *Devalīya* (Sū.2.22–23ab), Dhanvantari (Sū.1.1 and 17.4ab; Śā.5.128), dhānavantarīyāḥ (Sū.1.1 and 6cd; 19.20–24ab and 45cd–46ab; 26.47–55ab; 29.6cd–8ab; 30.3–8ab; Ni.10.20cd–21), dramalakavayaḥ (Sū.1.23cd–24ab),<sup>517</sup> Dr̥ḥabala (Śā.3.61cd–62ab and 67cd), *Gopālikā* (Sū.6.91cd–94),<sup>518</sup> Halāyudha (Sū.1.1, twice), *Haremkhalā* (Sū.3.19–22), Hariscandra (Sū.1.1; 5.6–7ab and 42ab),<sup>519</sup> Hārīta (Sū.1.3–4ab), Hātaka (passim),<sup>520</sup> Hiranyākṣa (Sū.19.79–80ab), *Hiranyākṣīya* (Śā.3.67cd), *Hṛdyā* and *Hṛdyākāra* (passim),<sup>521</sup> Indu (passim),<sup>522</sup> Jātūkārṇa (Sū.1.3–4ab), *Kakṣapūṭa* (Sū.3.19–22), Kālidāsa (Sū.2.30), *Kāmandakīya* (Sū.7.14–18ab), Kāṅkāyana (Sū.1.14cd–15ab), Kapilabala (Sū.1.12ab), Kāśyapa (Sū.1.1; 3.19–22; 5.44–45), Kharanāda (Sū.1.9cd–10 and 19; 3.1–2; 5.18, 23cd, 28cd, 29ab; 6.64cd, 114cd–115ab, 149cd, 153cd–157; 8.54–55ab, twice; 9.1; 12.69–72; 19.11cd–12ab, 14cd–15, 76cd–77ab; Ni.14.20 and 21), *Kriyāsiddhi* (1.23cd–24ab),<sup>523</sup> Kṛṣṇātreyā (Sū.1.14ab; 5.9cd–10; 6.29–30ab and 156ab), Kṣārapāṇi (Sū.1.3–4ab and 14cd–15ab; 4.6cd–7; 19.79cd–80ab), *Kṣārapāṇīya* (Sū.7.59cd–65ab), Māgha (Sū.2.25cd),<sup>524</sup> *Mahābhārata* (Sū.7.68cd–72ab), *Mahābhōja* (Sū.6.83), *Mahāyāna* (Sū.5.79–80ab),<sup>525</sup> mauhūrtikāḥ (Sū.16.17–18ab), muni (passim), *Nāgānanda* (Śā.5.6–9ab),<sup>526</sup> Nagnajit (Sū.1.1), Naiyāsika (Sū.3.7cd–8 and 44; 4.6cd–7; 5.18,<sup>527</sup> *Nandikeśvarasaṃhitā* (Sū.7.68cd–72ab),<sup>528</sup> *Nighaṇṭu* (Sū.1.1; 6.96;<sup>529</sup> 19.15cd–17), Nimi (Sū.1.1 and 14cd–15ab; 20.4cd–5ab, 15–16ab, 19cd–20, 32–33ab), Nyāsa (Sū.2.9cd; 15.47; 20.39),<sup>530</sup> *Nyāyabhāṣya* (Sū.12.40–43ab), Pālākāpya (Sū.16.21cd–22ab), Pāñcāla (Sū.7.68cd–72ab),<sup>531</sup> *Pañcikā* (Sū.2.1–3ab; 3.26cd–27 and 45–47ab; 24.22),<sup>532</sup> Pāñcikākāra (Sū.3.50cd–51ab), Pañḍita (Sū.4.6cd–7 and 31; 12.47cd–49ab; 27.52), Parāśara (Sū.1.3–4ab; 9.21; Śā.3.65cd–66ab), *paratantra* (Sū.5.29ab, 42cd–43; 19.50cd–51ab; Śā.3.8cd–9ab),<sup>533</sup> Pāthyakāra (passim),<sup>534</sup> Pauskalāvata (Sū.3.42cd–44ab), *Purāṇa* (Sū.2.30), *Ratirahasya* (Sū.7.68cd–72ab; 19.77cd–78ab), *Saivaapurāṇa* (Sū.1.1), śālākinaḥ (Sū.2.4cd–5 and 7ab), *Samgraha* (passim),<sup>535</sup> *Samkarācārya* (Sū.1.1), *Sāṃkhya* (Śā.3.61cd–62ab), Sārakṛt (passim),<sup>536</sup> *Sāramuṣṭi* (Sū.5.55 and 78cd; 6.91cd–94 and 129cd–131; 15.46; 16.17–18ab; 18.36cd), *Sarvāṅgasundarā* (often),<sup>537</sup> *Śaśilekhā* (often),<sup>538</sup> *Sauśruta* (often), Siddha (Sū.30.3–8ab), *Skāndapurāṇa* (Sū.1.1), *Ślokalampkāra* (Sū.6.151cd–155;<sup>539</sup> 7.32ab),<sup>540</sup> śruti (Sū.1.1 and 3–4ab), *sūdaśāstra* (Sū.3.30cd–32ab; 5.50ab; 6.29–30ab and 104cd–106ab; 18.29), Suśruta (passim), *Suśrutamahāpāṭha* (Sū.5.13ab),<sup>541</sup> *tantrakṛtāḥ* (Śā.3.61cd–62ab), *tantrāntara* (Sū.5.49; 6.30cd, 31, 156; 15.46; 20.22; Śā.2.3cd–6a; 3.14–15, 17cd–18a, 55–56),<sup>542</sup> *tārkikāḥ* (Sū.24.22), *ṭippaṇa* (Śā.3.61cd–62ab, 63cd–64ab, 77cd–78, 79, 82, 96–103,

107cd–113ab; 5.41cd–42ab, 109, 112, 119cd–120ab; 6.1, 19cd–23ab, 24–25ab, 48cd–57),<sup>543</sup> Udbhaṭa (Sū.3.23cd–26ab),<sup>544</sup> Vāhaṭa (passim), vaidāntikāh (Sū.24.22), *Vaidehisaṃhitā* (23.16cd),<sup>545</sup> *Vaijayantī* (Sū.4.31; Nī.2.38–39; 14.26–27),<sup>546</sup> *Vaitaraṇa* (Sū.1.14ab; 20.16cd–17ab), *Vālmīki* (Śā.5.109), *Vāmadeva* (Sū.28.3–9, 19, 26cd–31), *Vātsyānana* (Sū.7.68cd–72ab), *Veda* (Sū.3.1–2), *Viśvāmitra* (Sū.30.8cd–18), *Viśvāmitrīya* (Sū.30.1–2, 8cd–18, 39), *Viśvaparakāśikā* (Nī.2.38–39),<sup>547</sup> *Vṛddhasausṛta* (Sū.5.3–4ab), *Vyāsa* (Sū.2, intr. and 27), *Yādava* (Sū.17.16–17a),<sup>548</sup> *Yajuhśruti* (Śā.1.24cd–26ab), and *Yavanasaṃhitā* (Sū.3.9).<sup>549</sup>

Śrīdāsapāṇḍita<sup>550</sup> was a pupil of Vāsudeva.<sup>551</sup> Another pupil of the same teacher wrote the *Vyākhyāsāra*, often quoted by Śrīdāsa, and therefore written somewhat earlier. The *Hṛdayabodhikā* and *Vyākhyāsāra* contain a number of quotations, attributed to the guru of the authors, which are identical.<sup>552</sup>

A Malayālam commentary on the *Aṣṭāṅgaḥṛdaya*, Śrīkaṇṭha's *Alpabuddhiprabodhana*, follows closely the *Hṛdayabodhikā* and *Vyākhyāsāra*. Śrīkaṇṭha is placed in the latter half of the fourteenth century, which implies that Śrīdāsapāṇḍita may belong to the first half of the fourteenth century at the latest.<sup>553</sup> His terminus post quem depends on the dates of Aruṇadatta and Māhuka (the author of the *Haremkhalā*), who are quoted.

A more precise dating would be reached if Śrīdāsa's teacher were the Vāsudeva who wrote the *Anvayamālā* on the *Aṣṭāṅgaḥṛdayasaṃhitā*.

Śrīdāsapāṇḍita is quoted in Parameśvara's *Vākyapradīpikā*,<sup>554</sup> assigned to about A.D. 1425,<sup>555</sup> which does not conflict with the hypothesis that the author of the *Anvayamālā* was his guru. The quotations from a work by this guru in the *Hṛdayabodhikā* could in that case be from the *Anvayamālā*. If correct, the hypothesis that Śrīdāsa was a pupil of the author of the *Anvayamālā* corroborates that he belongs to the fourteenth century.

ŚRĪKAṆṬHA, pupil of Govinda Śaṅkarācārya, wrote a Malayālam commentary, called *Alpabuddhiprabodhana*.<sup>556</sup>

This commentary follows closely Śrīdāsa's *Hṛdayabodhikā* and the *Vyākhyāsāra*, and consists partly of Malayālam translations of passages from these works.

Its author, Śrīkaṇṭha, is identified as the teacher, well-versed in āyurveda, of Rāghava, who wrote a commentary, called *Padārthacintana*, on Vāsudeva Paramaśivayogin's *Yudhiṣṭhiravijaya*, a kāvya.<sup>557</sup> Rāghava refers in this commentary to Śrīkaṇṭha. Rāghava was in his turn the teacher of Śaṅkara, the author of the *Śrīkṛṣṇavijaya*,<sup>558</sup> who mentions him respectfully.

Rāghava is referred to in the *Candrotsava*, a maṇipravāla kāvya of the fifteenth century; Śaṅkara is mentioned in the *Kokilasamdeśa* by Uddaṇḍa,<sup>559</sup> who flourished in the beginning of the fifteenth century.

Śrīkaṇṭha can therefore be assigned to the second half of the fourteenth century.<sup>560</sup>

The SUGATAṬĪKĀ is recorded by some authors.<sup>561</sup> This commentary is quoted in Kuṇṇē and Navre's edition of the *Aṣṭāṅgaḥṛdayasaṃhitā*.<sup>562</sup>

ṬOḌARAMALLAVIDYA is the author of a commentary, called NIDĀNACINTĀMAṆI, on the Nidānasthāna of the *Aṣṭāṅgaḥṛdaya*.

The author, Ṭoḍaramallavaidya Kāṇhaprabhu, was the son of the physician Beṇṇi-devaprabhu and Sāmāmbikā,<sup>563</sup> which makes him different from the Ṭoḍara to whom the *Ṭoḍarānanda* is attributed.<sup>564</sup>

The *Nidānacintāmaṇi* is quoted in the footnotes of Kuṇṭe and Navre's edition of the *Aṣṭāṅgaḥṛdayasaṃhitā*.<sup>565</sup> These quotations show that Th. Aufrecht's assertion that Ṭoḍara often agrees with Aruṇadatta<sup>566</sup> is untenable. Ṭoḍara has many independent interpretations; the similarities between the commentaries of Ṭoḍara and Candranandana are more striking than those between the *Nidānacintāmaṇi* and the *Sarvāṅgasundarā*.

P. Cordier remarks that Ṭoḍaramalla's commentary is poor in quotations.<sup>567</sup>

UDAYĀDITYA(BHAṬṬA) was the author of a commentary called AṢṬĀṆGAHṚDAYA-DĪPIKĀ.<sup>568</sup> He was the son of Mādhavabhaṭṭa and was born in Śrīsthitagrāmakṣikāranya.<sup>569</sup>

Udayāditya's commentary shows that its author is heavily indebted to his predecessor Śrīdāsa, and was influenced by Aruṇadatta's interpretations. He sometimes borrows from Śrīdāsa's sources without mentioning their names.<sup>570</sup>

Udayāditya is probably identical with the commentator Manodayāditya.<sup>571</sup>

VĀCASPATIMĪŚRA is mentioned by some authors as a commentator on the *Aṣṭāṅgaḥṛdaya*.<sup>572</sup>

VĀGBHAṬA himself is recorded as the author of a commentary, called *Aṣṭāṅgaḥṛdayavaiḍūryakabhāṣya*.<sup>573</sup> The Sanskrit text of this work has not been preserved, but it is available in a Tibetan translation (*Yan-lag brgyad-paḥi sñin-po žes-bya-baḥi sman-dpyad-kyi bsad-pa*) that forms part of the Tanjur. This translation, produced during the first half of the life of Lha-bla-ma Ye-śes-ḥod,<sup>574</sup> was made by Dharmasrī-varman<sup>575</sup> and Śākya blo-gros (Śākyamati),<sup>576</sup> according to its colophon, which adds that the translation was revised by Mar-lo,<sup>577</sup> Rig-pa gžon-nu (Vidyākumāra), and Dbyig-gi rin-chen (Vasuratna).<sup>578</sup>

Vāgbhaṭa's auto-commentary<sup>579</sup> was rendered into Tibetan before the *Aṣṭāṅgaḥṛdayasaṃhitā* itself.<sup>580</sup>

Medical authorities referred to are Agastya, Agniveśa, Atri, Bheḍa, Caraka, Hārīta, Nimi, Śaunaka, Suśruta, and Vasiṣṭha.<sup>581</sup>

Vāgbhaṭa's bhāṣya may be mentioned in the *Kusumāvalī* on the *Siddhayoga*.<sup>582</sup>

VĀGBHAṬA, author of the *Kāvyaṇuśāṣana*, is credited with a HṚDAYAṬIPPAṆA<sup>583</sup>

VĀPYACANDRA is sometimes regarded as a commentator on the *Aṣṭāṅgaḥṛdaya*.<sup>584</sup>

VĀSUDEVA wrote a commentary called ANVAYAMĀLĀ,<sup>585</sup> which mainly consists of prose paraphrases (anvaya) of Vāgbhaṭa's verses, thus elucidating their syntax.<sup>586</sup> The *Anvayamālā* probably covered the whole of the *Aṣṭāṅgaḥṛdaya*.<sup>587</sup>

Vāsudeva was a Nambudiri brāhmaṇa and a disciple of aṣṭavaidyā Ālattūr Nampi of Tirunāvāy, on the banks of the river Ponnani.<sup>588</sup> Vāsudeva himself mentions that he lived in Vaṭagrāma, which is the same village as Aśvatthagṛāma, where Parameśvara lived. Parameśvara's commentary may have been influenced by the *Anvayamālā*. Vayaskara N.S. Mooss, who edited the commentaries of Indu and Parameśvara on the *Aṣṭāṅgaḥṛdaya*, as well as the *Anvayamālā* on the Śārīrasthāna and two parts of the *Pāṭhya*, was a descendant of Vāsudeva, who was, as declared by himself, of Vayaskara lineage.

N.S. Mooss dates Vāsudeva to a period before A.D. 1425, which implies that he may have been the teacher of Śrīdāsapaṇḍita and the author of the *Vyākhyāsāra*.

A story told about Vāsudeva relates that he cured the Rājā of Tekkumkur, who suffered from a carbuncle, which resulted in his being outcasted by his Nambudiri relatives, who considered him to be degraded through the practice of surgery.<sup>589</sup>

VIŚVEŚVARAPAṆḌITA wrote a commentary called VIJṆEYĀRTHAPRAKĀŚIKĀ.<sup>590</sup>

VIṬṬHALAPAṆḌITA is sometimes regarded as the author of a commentary called DĪPIKĀ.<sup>591</sup>

An anonymous VYĀKHYĀ is recorded by some authors.<sup>592</sup>

A commentary called VYĀKHYĀSĀRA<sup>593</sup> was written by an author from Kerala.<sup>594</sup> The name of this author may have been Ravi.<sup>595</sup>

The small part of this commentary that has been edited (Śā.1.1-77)<sup>596</sup> contains quotations from Āgama, Aruṇadatta (1.59cd-62 and 63-69), Bharata (1.70-72ab),<sup>597</sup> Caraka, Dāruvāhin (1.5a-c), *Hiraṇyākṣīya* (1.5d-6ab, 23cd-24ab, 24cd-26ab), Kohala (1.70-72ab),<sup>598</sup> *Samgraha*, *Sauśruta*, *Śmṛti* (1.26cd-27ab), and *tantrāntara* (1.26cd-27ab and 27cd-28ab).

The author of the *Vyākhyāsāra* is quoted as Sārakṛt by Indu, Parameśvara, Śrīdāsapaṇḍita, and the author of the *Kairālī*.<sup>599</sup> Parameśvara cites the *Vyākhyāsāra* too.

The author was a contemporary of Śrīdāsapaṇḍita and studied under the same teacher, called Vāsudeva by Śrīdāsa. The *Vyākhyāsāra* and Śrīdāsa's *Hṛdayabodhikā* contain identical quotations from and references to this teacher.<sup>600</sup>

YAŚONANDANA SARKĀRA is mentioned as the author of a commentary called PRA-DĪPĀKHYĀ.<sup>601</sup>

One or more anonymous commentaries on the *Aṣṭāṅgasamgraha* are recorded in MSS Catalogues.<sup>602</sup>

BRAHMĀNANDA or Brahmasūri wrote a commentary, called TĀTPARYADĪPIKĀ, on the *Aṣṭāṅgasamgraha*.<sup>603</sup>

INDU wrote the ŚĀSILEKHĀ on the *Aṣṭāṅgasamgraha*.<sup>604</sup>

RĀMACANDRAŚĀSTRIN KIṆJAVĀḌEKAR wrote a PRABHĀṬIPPANĪ on chapters one to eleven of the Sūtrasthāna of the *Aṣṭāṅgasamgraha*.<sup>605</sup>



## Appendix





## Various ancient authorities

BANDHAKA<sup>1</sup> is mentioned as the author of a treatise on children's diseases in Dalhaṇa's *Nibandhasaṃgraha* (ad Su.U.1.4cd–8ab). He therefore figures on the traditional list of authors of a tantra on kaumārabhṛtya.<sup>2</sup>

BHĀLUKI<sup>3</sup> was the author of a *Bhālukitantra*,<sup>4</sup> also quoted as *Bhālūkīya*.

Authors and treatises quoting from or referring to this work or its author are Āḍhamalla,<sup>5</sup> Anantakumāra,<sup>6</sup> the *Āyurvedābhdhisāra* and its commentary,<sup>7</sup> the *Bheṣaja-kalpa*,<sup>8</sup> the *Bhesajjamañjūsānaya*, Bindu,<sup>9</sup> Cakrapāṇidatta,<sup>10</sup> Candratā,<sup>11</sup> Catu-rbhūja,<sup>12</sup> Cūḍāmaṇi,<sup>13</sup> Dalhaṇa,<sup>14</sup> Dāmodara,<sup>15</sup> Dattarāma,<sup>16</sup> Gaṅgādhara,<sup>17</sup> Gayadāsa,<sup>18</sup> Hārāṇacandra,<sup>19</sup> Jejjāta,<sup>20</sup> Mādhavācārya,<sup>21</sup> Bhudeb Mookerjee,<sup>22</sup> Nārāyaṇa,<sup>23</sup> Nīścalakara,<sup>24</sup> Nṛsiṃhakavi,<sup>25</sup> Parameśvara,<sup>26</sup> Rāmaprasāda,<sup>27</sup> Śivadāsaśena,<sup>28</sup> Somadeva,<sup>29</sup> Śrīdāsaṇḍita,<sup>30</sup> Śrīkaṇṭhadatta,<sup>31</sup> Tōḍara,<sup>32</sup> Vācaspati,<sup>33</sup> Vāgbhaṭa,<sup>34</sup> Vallabhabhaṭṭa,<sup>35</sup> Venkaṭeṣa, Vijayarakṣita,<sup>36</sup> and Viśvanātha Dvivedī.<sup>37</sup> Bhāluki is also quoted by the unknown author of the interpolated portions of Nīścalakara's *Ratnaprabhā*.<sup>38</sup>

Hariprapanna quotes some rasayogas, ascribed to Bhāluki, from Dattarāma's *Rasārājasundara*,<sup>39</sup> Dattātreya's *Rasacaṇḍāṇṣu*,<sup>40</sup> Deveśvara Upādhyāya's *Rasendraratna-koṣa*,<sup>41</sup> Kāśinātha's *Cikitsākramakalpavallī*,<sup>42</sup> Magnirāma's *Rasakalpalatā*,<sup>43</sup> and the anonymous *Rasaratnakāumudī*.<sup>44</sup>

Verses from the *Bhālukitantra* were incorporated in the *Mādhavacikitsā*,<sup>45</sup> *Siddhayaoga*,<sup>46</sup> *Cakradatta*,<sup>47</sup> and various later works.

The Indian tradition regards Bhāluki as the author of a śalyatantra,<sup>48</sup> but the quotations from the treatise called after him show that it dealt with more aspects of medicine.

The *Bhālukitantra* was composed in the form of a dialogue between an unknown teacher and Bhāluki as his pupil.<sup>49</sup> It may have consisted of a number of sections (sthāna), since a Siddhisthāna of the work is referred to.<sup>50</sup> It was probably written in verse, interspersed with prose.<sup>51</sup>

Subjects covered by the quotations are: units of time,<sup>52</sup> the preparation of medicines,<sup>53</sup> emetics and clysters,<sup>54</sup> surgical instruments,<sup>55</sup> bloodletting,<sup>56</sup> the application of leeches,<sup>57</sup> the extraction of foreign bodies,<sup>58</sup> the surgical treatment of aśmarī (vesical calculus),<sup>59</sup> the diagnosis and treatment of various diseases,<sup>60</sup> and in particular the description and treatment of fevers. Bhāluki's description of a series of sarpipāta fevers, his characterization of the disorder called koṭha,<sup>61</sup> and his way of distinguishing between kilāsa and śvitra,<sup>62</sup> were famous, being quoted in a number of later works. The number of śūkadoṣas and their subdivision, as found in his tantra, were, however, not accepted by later authors.<sup>63</sup>

The comments of Cakrapāṇidatta and Dalhaṇa on Suśruta's chapters about surgical instruments show that Bhāluki's treatise was probably one of the sources of the *Suśrutasaṃhitā*.<sup>64</sup>

One verse is said to be common to the works of Bhāluki and Bhoja.<sup>65</sup> Another quotation, ascribed to Bhāluki, consists of verses found in the *Bhelasamhitā*.<sup>66</sup>

Most interesting are the verses on saṃnipāta fevers. A long series is quoted in the *Madhukośa*<sup>67</sup> and Nārāyaṇa's *Jvaranirṇaya*;<sup>68</sup> closely related descriptions are found in the *Kāśyapasaṃhitā*,<sup>69</sup> *Vaṅgasena*,<sup>70</sup> and *Jvaratimirabhāskara*.<sup>71</sup> Niścala cites eight stanzas on saṃnipāta fever in general<sup>72</sup> and twenty-four verses on irregular (viśama) fevers.<sup>73</sup> The last series is the longest description known of the viśama fevers; pralepaka fever is included in the group.

Bhāluki was opposed to the admission of śūdras as pupils of āyurvedic teachers.<sup>74</sup>

The *Bhālukitantra* is probably a rather early work, anterior to Jejjaṭa, *Mādhavacikitsā* and *Siddhayoga*.

The iatrochemical tradition regards Bhāluki as one of its originators and authorities.<sup>75</sup>

BHOJA<sup>76</sup> is an ancient authority who composed a work of his own that may have resembled the *Suśrutasaṃhitā*<sup>77</sup> in being of a comprehensive nature, although laying emphasis on śalya and śālākya. Bhoja's treatise, referred to as a *saṃhitā*<sup>78</sup> or *tantra*, was, as appears from quotations, written in verse, mixed with some prose,<sup>79</sup> and must have been in the form of a dialogue between a teacher and some king.<sup>80</sup> Bhoja was undoubtedly a specialist in śalya and śālākya,<sup>81</sup> but the quotations from his work prove that he was well versed in basic concepts,<sup>82</sup> anatomy,<sup>83</sup> kaumārābhṛtya,<sup>84</sup> kāyacikitsā,<sup>85</sup> materia medica,<sup>86</sup> technical rules,<sup>87</sup> etc.

The Indian tradition regards him as the author of a śalyatantra.<sup>88</sup> This work may have been one of Suśruta's sources.<sup>89</sup>

The ancient Bhoja is quite different from his later namesake to whom numerous works on various subjects, including medicine, are attributed.<sup>90</sup>

Bhoja is already known as an ancient medical authority in Buddhist literature,<sup>91</sup> where he is referred to as a specialist in toxicology and the treatment of snake-bites.<sup>92</sup>

Special features of Bhoja's treatise, as shown by quotations, are: the digestive fire forms part of pitta;<sup>93</sup> a divergent description of the stages of embryonic development;<sup>94</sup> the same views on irregular fevers as expressed by other specialists in śalya;<sup>95</sup> pravāhikā is called visraṃsi;<sup>96</sup> numerous detailed descriptions of diseases;<sup>97</sup> the description of nine types of pramehapiḍakā;<sup>98</sup> masūrikā, one of the pramehapiḍakās, is called kulathikā;<sup>99</sup> the absence of raktavidradhi as a separate type of vidradhi;<sup>100</sup> an aberrant view on sidhma;<sup>101</sup> the acceptance of a larger number of kṣudrarogas;<sup>102</sup> the recognition of sixty-five mukharogas;<sup>103</sup> the description of ten types of kaṣāya;<sup>104</sup> the names of some uncommon plants: alakṣmī,<sup>105</sup> lakṣmī and mahālakṣmī,<sup>106</sup> hrasvavallī, mahāvallī, kṣudravallī, and śvetavallī.<sup>107</sup>

Several versions of Bhoja's work may have been current, since quotations are found from authorities and works called Bhojarāja, *Bhojarājīya*, *Bhojottara*, *Brhadbhoja*, *Kṣudrabhoja*, *Mahābhoja*, and *Vṛddhabhoja*.<sup>108</sup>

Bhoja is almost always quoted with respect, but on one occasion Ḍalhaṇa rejects his view.<sup>109</sup>

Authors and works quoting from or referring to Bhoja<sup>110</sup> are: Āḍhamalla,<sup>111</sup> Anantakūmāra,<sup>112</sup> Āsubodha and Nityabodha Senagupta in their commentary on the *Rasaratnasamuccaya*,<sup>113</sup> the *Āyurvedābhdhisāra* and its commentary,<sup>114</sup> Bhāvamiśra,<sup>115</sup> Bharadvāja's *Bheṣajakalpa*,<sup>116</sup> the *Bheṣajakalpasārasaṃgraha*, the *Bṛhannighaṇṭu-ratnākara*,<sup>117</sup> Binod Lal Sen in his *Āyurvedavijñāna*,<sup>118</sup> Cakrapāṇidatta in his *Āyurvedadīpikā*<sup>119</sup> and *Bhānumatī*,<sup>120</sup> Candrāṭa,<sup>121</sup> Ḍalhaṇa,<sup>122</sup> Dāmodara,<sup>123</sup> Dattarāma Caube,<sup>124</sup> the *Gandhavāda*,<sup>125</sup> Gaṅgādhara in his *Bheṣajakalpa*, Gayadāsa,<sup>126</sup> Gopāladāsa in his *Cikitsāmṛta*, Hārāṇacandra,<sup>127</sup> Indu,<sup>128</sup> Jejjāṭa,<sup>129</sup> the *Jvaracikitsita*, the *Jvarasamuccaya*, the *Kairālī* commentary on the Uttarasthāna of the *Aṣṭāṅghṛdayasaṃhitā*,<sup>130</sup> Karandikar in his *Nidānadīpikā*,<sup>131</sup> Kāśīrāma,<sup>132</sup> Lakṣmīrāma,<sup>133</sup> Nāganātha in his *Nidānapradīpa*, Narasiṃha in his commentary on the *Mādhavanidāna*, Niścalakara,<sup>134</sup> Nṛsiṃhakavi,<sup>135</sup> Parameśvara,<sup>136</sup> Raghunātha,<sup>137</sup> Rūpanayana in his commentary on the *Yogaśataka*, Śivādāsasena,<sup>138</sup> Śrīdāsapaṇḍita,<sup>139</sup> Śrīkaṇṭhadatta,<sup>140</sup> Tisāṭa,<sup>141</sup> Ṭodara,<sup>142</sup> Trimalla,<sup>143</sup> Vācaspati,<sup>144</sup> Vāgbhaṭa,<sup>145</sup> the *Vaidyacinṭāmaṇi*,<sup>146</sup> Vijayarakṣita,<sup>147</sup> Vīrasīṃha,<sup>148</sup> and the *Yogaratanākara*.<sup>149</sup> Bhoja is also quoted by the unknown author of the interpolated portions of Niścalakara's *Ratnaprabhā*.<sup>150</sup>

Bhoja is mentioned in the *Ma'din al-Ṣhifā'*<sup>151</sup> and Amānallāh Khān's *Ganj-i Badāward*, written during the reign of Shāh Jahān.<sup>152</sup>

Bhojarāja<sup>153</sup> is quoted by Anantakumāra,<sup>154</sup> in the *Kāmaratna*,<sup>155</sup> and by Śivādāsasena.<sup>156</sup> The *Bhojarājīya*<sup>157</sup> is cited in the *Bheṣajjamañjūsāsannaya* and by Śrīdāsapaṇḍita.<sup>158</sup> *Bhojottara*,<sup>159</sup> *Bṛhadbhoja*,<sup>160</sup> and *Kṣudrabhoja*<sup>161</sup> are cited by Anantakumāra. *Mahābhoja* is cited by Śrīdāsapaṇḍita.<sup>162</sup> *Bṛhadbhoja* was one of the sources of the *Bheṣajakalpasārasaṃgraha*<sup>163</sup> and Gaṅgādhara's *Bheṣajakalpa*. *Vṛddhabhoja* is quoted by Āḍhamalla,<sup>164</sup> the commentator on the *Āyurvedābhdhisāra*,<sup>165</sup> Candrāṭa,<sup>166</sup> Ḍalhaṇa,<sup>167</sup> Nāganātha in his *Nidānapradīpa*, Rūpanayana in his commentary on the *Yogaśataka*, Ṭodara,<sup>168</sup> Vācaspati,<sup>169</sup> Vijayarakṣita,<sup>170</sup> and the unknown author of the interpolated portions of Niścalakara's *Ratnaprabhā*.<sup>171</sup>

The verses from *Vṛddhabhoja* are interesting, since they stress the importance of disorders of the digestive fire and describe the differences among three closely related disorders of this group, namely arocaka, bhaktadveṣa and abhaktacchanda.

Bhoja's treatise may belong to the period in which the saṃhitā of Suśruta was revised; it may even be earlier and belong to Suśruta's sources,<sup>172</sup> since Śrīkaṇṭhadatta remarks that Suśruta follows Bhoja.<sup>173</sup> Ḍalhaṇa refers unfavourably to predecessors who incorporated a statement by Bhoja in the text of the *Suśrutasaṃhitā*.<sup>174</sup> Bhoja is mentioned in the company of Bhāluki<sup>175</sup> and Viśvāmitra,<sup>176</sup> also together with Jejjāṭa and Kārttika.<sup>177</sup> He is certainly earlier than Jejjāṭa, Indu, Tisāṭa, etc., who quote him. Bhoja himself refers to earlier authorities<sup>178</sup> and to Dhanvantari.<sup>179</sup>

CAKṢUṢYA or CAKṢUṢYEṆA<sup>180</sup> is an ancient medical authority and the reputed author of a lost tantra on śālākya.<sup>181</sup>

He is quoted<sup>182</sup> or referred to by Āḍhamalla,<sup>183</sup> Anantakumāra,<sup>184</sup> Āsubodha and

Nityabodha in their commentary on the *Rasaratnasamuccaya*,<sup>185</sup> the author of the *Bheṣajakalpasārasaṃgraha*,<sup>186</sup> the author of the *Bheṣajjamañjūsāsannaya*,<sup>187</sup> Cakrapāṇidatta,<sup>188</sup> Candrāṭa,<sup>189</sup> Ḍalhaṇa,<sup>190</sup> Gayadāsa,<sup>191</sup> Indu,<sup>192</sup> Mādhava,<sup>193</sup> Nīścalakara,<sup>194</sup> Śivadāsaśena,<sup>195</sup> Śrīkaṇṭhadatta,<sup>196</sup> Tōḍara,<sup>197</sup> Vācaspati,<sup>198</sup> Vāgbhaṭa,<sup>199</sup> and Vaṅga-sena.<sup>200</sup>

Cakṣuṣyeṇa's treatise was one of the sources of Cakrapāṇidatta's *Cikitsāsaṃgraha*.<sup>201</sup>

Cakṣuṣyeṇa's work was probably a saṃhitā,<sup>202</sup> mainly written in verse,<sup>203</sup> with an emphasis on śālākya, but also covering many other subjects.<sup>204</sup> The citations show that Cakṣuṣyeṇa's treatise dealt with general subjects, technical rules,<sup>205</sup> pañcakarman,<sup>206</sup> and the treatment of diseases belonging to the divisions of kāyacikitsā and kaumārabbṛtya.<sup>207</sup> Among the general subjects were the three types of country (deśa),<sup>208</sup> the constitutions (prakṛti),<sup>209</sup> sattva,<sup>210</sup> sātmya,<sup>211</sup> the various types of kaṣāya,<sup>212</sup> and the four types of sneha.<sup>213</sup>

Cakṣuṣyeṇa distinguished two varieties of kvātha.<sup>214</sup> He held a divergent view on the meaning of pilla, regarding it as a term designating one eye disease or a small group of disorders, two of which are known under the names aklinna- and praklinnavartman.<sup>215</sup>

A Cākṣuṣa quoted by Mallinātha<sup>216</sup> appears to be a different author, who wrote on nīti or gajaśāstra.<sup>217</sup>

DĀRUKA<sup>218</sup> is an ancient medical authority, quoted by Cakrapāṇidatta<sup>219</sup> on the rules for the preparation and administration of decoctions. Two citations, found in the commentaries of Aruṇadatta and Śrīdāsa on the *Aṣṭāṅgahṛdayasaṃhitā*, may be from Dārūka, if certain variants in the MSS are preferable to the printed text.<sup>220</sup>

Opinions are divided on the question whether or not Dārūka is identical with Dāruvāha.<sup>221</sup> A decision cannot be reached on this point.

A Dārūka is the friend and charioteer of Kṛṣṇa in the *Mahābhārata*<sup>222</sup> and a number of Purāṇas.<sup>223</sup>

DĀRUVĀHA,<sup>224</sup> sometimes called Dāruvāhi(n), is an ancient medical authority, referred to and quoted in a number of texts and commentaries.

Dāruvāha's name occurs in the *Kāśyapasaṃhitā*, where he induces Vṛddhajīvaka to put questions to his teacher, Kaśyapa.<sup>225</sup> Another chapter of the same treatise<sup>226</sup> presents him as a member of an assembly of sages who declare how many types of diseases should be distinguished; the royal sage (rājaraṣi) Dāruvāha is credited with the thesis that diseases are of five kinds: of exogenous origin (āgantuja), caused by one of the three doṣas, or all three together.

Dāruvāha is quoted by Aruṇadatta,<sup>227</sup> Cakrapāṇidatta,<sup>228</sup> Jejjāṭa,<sup>229</sup> and Nīścalakara.<sup>230</sup> Dāruvāhi(n) is cited by Śrīdāsaapaṇḍita<sup>231</sup> and the author of the *Vyākhyāsāra* on the *Aṣṭāṅgahṛdaya*.<sup>232</sup> Indu refers to Dāruvāhi(n) in his commentary on the *Aṣṭāṅgasaṃgraha*.<sup>233</sup>

Nīścala gives Daruvāha's opinion on the quantities of a kvātha and sneha to be pre-

scribed to different types of patients. Cakrapāṇidatta and Jejjata quote verses about the pathophysiology of fever. Aruṇadatta and Śrīdāsapaṇḍita quote two stanzas on the circumstances during sexual intercourse which determine the conception of a boy or a girl. Aruṇadatta cites Dāruvāhi on the physiology of lactation.<sup>234</sup> Indu ascribes some statements in prose on the qualities required of a wet-nurse to Dāruvāhi,<sup>235</sup> cites him twice as interpreting in a different way some verses on the deities to be inscribed in a maṇḍala serving to ward off grahas,<sup>236</sup> and regards Nagnajit as identical with Dāruvāhin.<sup>237</sup> The view that Dāruvāha or Dāruvāhi(n) and Nagnajit are one and the same authority is shared by a number of contemporary Indian scholars.<sup>238</sup> Some consider him to be the same as Dārūka.<sup>239</sup>

JĪVAKA<sup>240</sup> is mentioned as the author of a treatise on children's diseases in Ḍaḥhaṇa's commentary on the *Suśrutasaṃhitā*.<sup>241</sup> Recipes attributed to him are found in Anantakumāra's *Yogarātnasamuccaya*,<sup>242</sup> the Bower MS,<sup>243</sup> the *Cakradatta*,<sup>244</sup> Ṭoḍara's *Āyurvedasaukhya*,<sup>245</sup> and Vaṅgasena's *Cikitsāsārasaṃgraha*.<sup>246</sup> These prescriptions, apart from those in the Bower MS, do not deal with children's diseases;<sup>247</sup> those found in Anantakumāra's work are concerned with disorders in pregnant women. Some verses, occurring in Vaṅgasena's treatise, enumerate seven disorders of the breastmilk, as described by Jīvaka.<sup>248</sup> The collection of prescriptions, known as the *Jīvakapustaka*, mentions Jīvaka as one who gets instruction in medical matters from the Buddha.<sup>249</sup>

A (Vṛddha)Jīvaka is the reputed author of the *Kāśyapasaṃhitā*, a treatise specialising in the branch of āyurveda called *kaumārabhṛtya*.<sup>250</sup> The *Kāśyapaśikṣāśāstrī-cikitsāsūtra*, a Buddhist treatise on embryology and prenatal care, is said to have been taught by Kāśyapa to Jīvaka.<sup>251</sup> Thai traditional medicine credits Jīvaka with treatises on children's diseases.<sup>252</sup>

Although his name is often mentioned in connection with paediatrics, the earliest references to him, found in Buddhist literature, depict him as a skillful surgeon,<sup>253</sup> who practised laparotomy and eventrephination of the skull.<sup>254</sup> This Jīvaka, surnamed *Komārabhacca*,<sup>255</sup> is described as providing free medical care to the Buddha and other monks, and donating his mango grove, named Jīvakārāma, at Rājagṛha, to the Buddhist monastic community. His free medical service to monks is said to have attracted large numbers of people to join the order. Legends about his life and medical feats can be found in many versions of a number of Buddhist scriptures.<sup>256</sup>

Jīvaka is reported to have obtained his medical education at Taxila by studying for seven years as apprentice to a physician, who is called Ātreya in part of the sources. After completing his studies, he travelled widely and acquired great fame. The legends concerning Jīvaka recount treatments performed on various people in different places.

A *Jīvakacarita*, devoted to the life and deeds of the Jīvaka known from Buddhist literature, was written by Śubhacandra, an author assigned to the sixteenth century.<sup>257</sup>

Jīvaka is known as Kumārajīva (Hcho-byed g'zon-nu) in the Tibetan medical tradition, where he is associated with G-yu-thog yon-tan mgon-po.<sup>258</sup>

The secondary literature on Jīvaka is rather extensive.<sup>259</sup>

KAPILA<sup>260</sup> is quoted in Niścala's *Ratnaprabhā* on the composition of the groups of drugs called tryūṣaṇa, caturūṣaṇa, pañcoṣaṇa, and ṣaṭūṣaṇa.<sup>261</sup>

Kapila is also quoted in Ṭoḍara's *Āyurvedasaukhya*.<sup>262</sup> Ṭoḍara's quotations, dealing with the symptoms and treatment of fevers and vesical calculi, do not convey the impression of being from an early treatise, since the saṃpipāta fevers called raktaṣṭhīvin and pralāpaka are mentioned.

Hemādri cites a verse by a Kapila who is obviously identical with Kapilabala, for this stanza about the relationships between the doṣas and the tastes forms part of the text of the *Aṣṭāṅgasamgraha*.<sup>263</sup> The Kapila quoted by Nṛsiṃhakavi is the same as the Kapilabala quoted by Cakra.<sup>264</sup>

D.Ch. Bhattacharyya claims that Kapila, whom he regards as identical with the Kapilabala who was Dṛṣṭhabala's father, is twice cited or referred to by Niścalakara.<sup>265</sup> A medical authority called Kapila figures in the *Milindapañha* (4. 7.20)<sup>266</sup> and *Visuddhimagga*.<sup>267</sup> His name is also found in the *Mahāvīyutpatti*.<sup>268</sup> A medical treatise, devoted to rasāyana, called *Kapilasiddhānta* is also recorded.<sup>269</sup> G. Mukhopadhyaya claims that the name of Kapila occurs in the list of sages of the *Carakasamhitā*<sup>270</sup> and in a list of persons described as proficient in the healing art in the *Devīpurāṇa*.<sup>271</sup>

The Kapilamuni quoted in the *Kalyāṇakārika*,<sup>272</sup> and the Kapila referred to in Cakrapāṇidatta's *Āyurvedadīpikā*<sup>273</sup> and in the introductory verses of Vācaspati's commentary on the *Mādhavanidāna*, may be different from the physician Kapila.

Kapila is by some regarded as the author of a śalyatantra.<sup>274</sup>

Kapila is a Rasasiddha in the *Pāradasaṃhitā*,<sup>275</sup> *Rasaratnākara*<sup>276</sup> and *Rasaratnasamuccaya*.<sup>277</sup> The *Raseśvarasiddhānta*, quoted in the *Sarvadarśanasamgraha*,<sup>278</sup> refers to Kapila as one of the Siddhas who obtained jīvanmukti.

As is evident from the quotations, Kapila may in some cases be regarded as an abbreviation of Kapilabala; the appellation muni, applied to Kapila and not to Kapilabala, tells against an overall identity of Kapila and Kapilabala.<sup>279</sup>

KARĀLA<sup>280</sup> is an ancient medical authority, regarded as a specialist in śālākya and the author of a lost tantra on that branch of āyurveda.<sup>281</sup> Vāgbhaṭa (A.s.Sū.1.11) mentions him as one of a series of sages who composed a medical treatise (tantra).

Karāla is moreover quoted or referred to in the Bower MS,<sup>282</sup> by Cakrapāṇidatta,<sup>283</sup> Dalhaṇa,<sup>284</sup> Śivādāsaśena,<sup>285</sup> Soḍhala,<sup>286</sup> Śrīkaṇṭhadatta,<sup>287</sup> and Vācaspati.<sup>288</sup> Vāṅgasena<sup>289</sup> and Vynda<sup>290</sup> are sometimes said to quote him.

The quotations from and references to Karāla, the reference in the *Soḍhalanighaṇṭu* excepted, deal with diseases of the eyes, ears and nose, thus showing that he was indeed a specialist in śālākya.

Karāla distinguished ninety-six, Sātyaki eighty, and Videha seventy-six eye diseases.<sup>291</sup> Caraka followed Karāla,<sup>292</sup> but Suśruta was an adherent of Videha's system.<sup>293</sup> Karāla's views differed in some other respects too from those of other śālākya specialists, both with respect to the aetiology of particular diseases<sup>294</sup> and their treatment.<sup>295</sup>

Karāla is by some regarded as a pupil of Nimi (Videha).<sup>296</sup> Others, who identify

him with Karāla Janaka, consider him to be the son of Nimi.<sup>297</sup> Karāla Janaka is mentioned in the *Majjhimanikāya*, *Mahābhārata* and Aśvaghoṣa's *Buddhacarita*.<sup>298</sup> This Karāla Janaka taught āyurveda to Vasiṣṭha according to the *Mahābhārata*, where also references to the former's knowledge about foetal development and the component parts of the human body are found.<sup>299</sup>

KHARANĀDA<sup>300</sup> was the author of a *Kharanādasamhitā*, which must have been an authoritative work,<sup>301</sup> since it is profusely<sup>302</sup> and extensively<sup>303</sup> quoted by later writers. Alternative forms of Kharanāda's name are Kharanāda,<sup>304</sup> Khāranāda,<sup>305</sup> and Khāranādi.<sup>306</sup>

Kharanāda's medical treatise itself is known from quotations only, but a torn leaf from a birch bark MS of a commentary on this work was discovered during excavations at Navapura near Gilgit in the summer of 1938.<sup>307</sup> This commentary is called *Khāranādanyāsa*, and the fragment found relates to a chapter on pregnancy entitled *kuṇḍikā garbhāvākraṇṭhi*.<sup>308</sup>

Kharanāda's work was called a *saṃhitā*, as shown by a reference to the *Kharanādasamhitā* in Indu's commentary on the *Aṣṭāṅgasamgraha*,<sup>309</sup> and was revised by Bhaṭṭārahariścandra.<sup>310</sup>

Authors and works quoting from or referring to Kharanāda<sup>311</sup> are: Ādhamaḥ, <sup>312</sup> Anantakumāra, <sup>313</sup> Aruṇadatta, <sup>314</sup> Āśubodha Vidyābhūṣaṇa, <sup>315</sup> the *Āyurvedābhidhīśara*, <sup>316</sup> Bharadvāja's *Bheṣajakalpa*, <sup>317</sup> the glosses on Bhāvamiśra's *Bhāvaprakāśa*, <sup>318</sup> the *Bheṣajamañjūsāsanaya*, Cakrapāṇidatta's commentary on the *Carakasamhitā*, <sup>319</sup> Candranandana's commentary on the *Aṣṭāṅgahṛdayasamhitā*, <sup>320</sup> Candrāta's *Yogaratanasamuccaya* and commentary on the *Cikitsākalikā*, <sup>321</sup> Dāmodara's *Ārogyacintāmaṇi*, <sup>322</sup> Gaṇanāthasena's commentary on his *Siddhāntanidāna*, <sup>323</sup> Gulrājśarmamiśra's *Viśikhānupraveśavijñāna*, Hemādri's commentary on the *Aṣṭāṅgahṛdayasamhitā*, <sup>324</sup> Indu's commentaries on the works ascribed to Vāgbhaṭa, <sup>325</sup> Jejjāta, <sup>326</sup> Keśava, <sup>327</sup> Kṛṣṇadatta's commentary on Trimalla's *Śataśloki*, Mānakavi's *Kavipramoda*, Meghadeva's commentary on the *Mādhavadravayaguṇa*, Nāganātha's *Nidānapradīpa*, Nārāyaṇa's *Jvaranirṇaya*, <sup>328</sup> Nīścalakara, <sup>329</sup> Nṛsiṃhakavi, <sup>330</sup> the *Śārngadharaśamhitā*, <sup>331</sup> Śivādāsasena's commentary on the *Cakradatta*, <sup>332</sup> Soḍhala's *Gadanigraha*, <sup>333</sup> Śrīdāsaṇḍita's commentary on the *Aṣṭāṅgahṛdayasamhitā*, <sup>334</sup> Śrīkaṇṭhadatta, <sup>335</sup> Ṭoḍara, <sup>336</sup> Tripāṭhiśaṃkara's commentary on the *Añjananidāna*, Vācaspati, <sup>337</sup> Vijayarākṣita, <sup>338</sup> and Vopadeva.<sup>339</sup> Non-medical authors citing him are Dakṣiṇāvartanātha and Pūrṇasarasvatī in their commentaries on Kālidāsa's *Meghadūta*.<sup>340</sup> A *Vṛddhakharanāda* is quoted once in Anantakumāra's *Yogaratanasamuccaya*.<sup>341</sup>

A medical treatise called *Khāranādī* is mentioned in the introductory verses of the MS of an *Ātreyasamhitā*.<sup>342</sup>

Kharanāda is known as a medical authority in the Tibetan tradition.<sup>343</sup>

The quotations show that the work was composed in verse and dealt with the whole range of medicine.<sup>344</sup> Some regard it as a treatise on *kāyacikitsā*,<sup>345</sup> but it may have been more like the *Aṣṭāṅgahṛdayasamhitā*,<sup>346</sup> although it had features in common with the *Carakasamhitā* too.<sup>347</sup> The absence of quotations from Kharanāda in Ḍaḥṇa's commentary on the *Suśrutasaṃhitā* suggests that it was definitely not a specialized

work on śālyā. The contents of the *Kharanādasamhitā* were in some respects related, even closely so, to those of the *Carakasamhitā* and *Suśrutasamhitā*,<sup>348</sup> but one of its noteworthy features was that it frequently disagreed with the works of Caraka and Suśruta, which made the commentators meet with numerous problems, and which induced Keśava to write his *Siddhamantra* with a view to solve these controversies.<sup>349</sup> This particularity of the *Kharanādasamhitā* may explain that Haricandra produced a new version of the work, more in line with the *Carakasamhitā*,<sup>350</sup> on which he wrote a commentary.<sup>351</sup> Kharanāda himself probably tried to surmount some of the difficulties posed by discrepancies between the pharmacological descriptions of the *Caraka-* and *Suśrutasamhitā*, which made him appreciated by Keśava and Hemādri.<sup>352</sup> The overall impression gained from the quotations is in favour of the view that Kharanāda can be regarded as a predecessor of Vāgbhaṭa.

Noteworthy features of the *Kharanādasamhitā*, as shown by quotations from it, are: agreements and disagreements compared with the views of Caraka<sup>353</sup> and Suśruta;<sup>354</sup> more details than in the *Caraka-* and *Suśrutasamhitā*;<sup>355</sup> elaborate descriptions of the properties and actions of articles of food and drugs;<sup>356</sup> the distinction of four types of śāka;<sup>357</sup> the use of particular technical terms;<sup>358</sup> the description of kapha as being yogavāhin;<sup>359</sup> a definition of a particular action of drugs called pramāthin;<sup>360</sup> a list of the twenty guṇas that differs from those found in Caraka and Suśruta;<sup>361</sup> the acceptance of eight guṇas as vīrya;<sup>362</sup> the recognition of six types of sātmya;<sup>363</sup> a particular classification of the constitutions (prakṛti);<sup>364</sup> the acceptance of only four types of viśamajvara;<sup>365</sup> a particular view on lethal fevers;<sup>366</sup> a description of specific therapies for various types of prameha;<sup>367</sup> the distinction of thirty-six types of vātarakta;<sup>368</sup> particular rules for the ratios of ingredients of pharmaceutical preparations.<sup>369</sup>

Kharanāda's chronological position depends on the date of Haricandra, who revised the *Kharanādasamhitā*. Haricandra is earlier than Vāgbhaṭa, which therefore applies to Kharanāda too.<sup>370</sup> As in Haricandra's case, it cannot be determined with certainty whether or not Kharanāda preceded Dṛḍhabala, but the possibility that the former belongs to an earlier period deserves to be taken into consideration.<sup>371</sup>

The fragment of the *Kharanādayāsa* is dated between the seventh century and the ninth.<sup>372</sup>

NĀGABHARTAR was the author of a *Nāgabhartṛtantra*,<sup>373</sup> quoted or referred to by Gaṇanāthasena,<sup>374</sup> Gaṅgādhara,<sup>375</sup> Nāganātha in his *Nidānapradīpa*, Nīrāyaṇa,<sup>376</sup> Nīścalakara,<sup>377</sup> Vijayarakṣita,<sup>378</sup> and the unknown author of the interpolated portions of Nīścalakara's *Ratnaprabhā*.<sup>379</sup>

Part of the citations refer to one and the same subject, namely the chief seats of the doṣaja varieties of quartan fever (caturthaka). The verses on this subject quoted by Vijayarakṣita and Gaṅgādhara are identical.<sup>380</sup> Vācaspati's commentary on the *Mādhavanidāna* (ad 2.37–38) contains the same stanza, but ascribes it to Vāgbhaṭa, in whose works it is not found.<sup>381</sup> Cakrapāṇidatta remarks (ad Ca.Ci.3.72) that the pittaja type of caturthaka fever (described in pādas c and d) has been added by Hārīta, but Vijayarakṣita claims (ad *Mādhavanidāna* 2.37–38) that Hārīta does not mention the seats of the three doṣaja varieties of caturthakajvara.



The quotations in Nīścala's *Ratnaprabhā* indicate that the *Nāgabhartṛtantra* was a complete medical treatise, dealing with pharmacology,<sup>382</sup> materia medica,<sup>383</sup> and the treatment of diseases.<sup>384</sup>

NAGNAJIT<sup>385</sup> is referred to in the *Bhelasamhitā* as a royal sage (rājarṣi, pāṛthivarṣi) to whom Ātreya Punarvasu, questioned by him, expounds the science of toxicology (Sū. 18).<sup>386</sup> His association with this branch of medicine is confirmed by the *Aṣṭāṅgasamgraha*, where he is said to have distinguished seven stages (vega) of poisoning, which differ from the eight stages recognized by Ātreya Punarvasu (U.40.32–33). Vāgbhata describes him in this way as an authority with views of his own which do not agree with Ātreya's teachings. Nagnajit's seven stages of poisoning are mentioned in the *Kairālī* commentary on the *Aṣṭāṅgahrdayasamhitā*.<sup>387</sup>

Nagnajit is known in Buddhist<sup>388</sup> and Jaina<sup>389</sup> literature.

Arunadatta<sup>390</sup> quotes some verses of Nagnajit which have no connection with toxicology and deal with the seven elements (dhātu) of the human body. Śrīdāsapaṇḍita<sup>391</sup> refers to Nagnajit as a member of a group of great sages (maharṣi).

A Vinagnajit is one of the originators of āyurveda in Hemādri's *Lakṣaṇaparakāśa*.<sup>392</sup>

Nagnajit is associated with the country of Gandhāra. The *Bhelasamhitā* relates that the royal sage Nagnajit put his questions to Ātreya when the latter stayed in Gandhāra. The *Aitareya*-<sup>393</sup> and *Śatapathabrāhmaṇa*-<sup>394</sup> are acquainted with a king of Gandhāra of this name.<sup>395</sup> A resident of Gandhāra called Nagnajit occurs in the *Mahābhārata*.<sup>396</sup>

Nagnajit is not only known as a medical authority, but also as an expert in the science of architecture (vāstusāstra). He is one of the eighteen teachers of this science in the *Matsyapurāṇa*.<sup>397</sup> Varāhamihira's *Bṛhatsamhitā* refers to Nagnajit's views in the same context, especially with regard to the construction of images and their proportions.<sup>398</sup> Bhaṭṭotpala, the commentator on the *Bṛhatsamhitā*, quotes from and refers to works by Nagnajit.<sup>399</sup>

Indu equates Nagnajit and Dāruvāhin;<sup>400</sup> some contemporary Indian scholars share his opinion.<sup>401</sup>

PĀRVATAKA<sup>402</sup> is mentioned as the author of a treatise on children's diseases in Ḍalhaṇa's *Nibandhasamgraha* (ad Su.U.1.4cd–8ab).<sup>403</sup> The name of Parvataka or Pārvataka is therefore found on the list of authors of a tantra on kaumārābhṛtya.<sup>404</sup>

Someone called Parvata figures among the originators of āyurveda in Hemādri's *Lakṣaṇaparakāśa*.<sup>405</sup>

SĀTYAKI<sup>406</sup> is an ancient medical authority regarded as a specialist in śālākya and the author of a lost tantra on that division of āyurveda.<sup>407</sup>

Sātyaki is quoted or referred to by Cakrapāṇidatta,<sup>408</sup> Ḍalhaṇa,<sup>409</sup> Narasiṃha in his commentary on the *Mādhavanidāna*, Śrīkaṇṭhadatta,<sup>410</sup> and Vācaspati.<sup>411</sup>

The quotations deal with diseases of the eye and the head, thus pointing to a treatise on śālākya.<sup>412</sup> These citations, all of them in verse, show that Sātyaki recognized a number of eighty eye diseases.<sup>413</sup> His views on some of these disorders were regarded as authoritative.<sup>414</sup> He distinguished śīraḥkampa (tremor of the head) as a sepa-

rate entity, whereas Suśruta regards it as a form of anantavāta;<sup>415</sup> Vāgbhaṭa<sup>416</sup> and Śārṅgadharā<sup>417</sup> follow Sātyaki in describing it as a distinct disorder. One quotation mentions that Sātyaki and Videha agree on a particular point of therapy.<sup>418</sup>

The *Mahābhārata* mentions a Sātyaki as a friend and pupil of Arjuna and a brother of Kṛṣṇa.<sup>419</sup>

SUDĀNTASENA,<sup>420</sup> also called Sudānta, is a medical authority quoted by Āḍhamalla,<sup>421</sup> Gaṇanāthasena,<sup>422</sup> Niścalakara,<sup>423</sup> Śivadāśasena,<sup>424</sup> Vaidyacināmaṇi,<sup>425</sup> Śrīkaṇṭha-datta,<sup>426</sup> and Vijayarakṣita.<sup>427</sup>

The quotations are concerned with the actions of the excited doṣas, the definitions of upaśaya and rasāyana, oleation treatment (sneha), and some recipes.

Sudāntasena's treatise, obviously in verse, may have covered many aspects of medicine. His lists of the actions of the doṣas, in long metres, agree with Caraka's teachings on the subject, as noticed by Vijayarakṣita.<sup>428</sup>

As is evident from the quotations, Sudāntasena preceded Vijayarakṣita.<sup>429</sup>

VYĀḌI is known as an authority on medicine, alchemy, and many other subjects, in particular grammar and lexicography.<sup>430</sup> It is a matter of no doubt that several different authors are concerned.<sup>431</sup>

Vyāḍi is quoted as a medical authority in Niścalakara's *Ratnaprabhā*<sup>432</sup> and Ṭo-dara's *Āyurvedasaukhya*.<sup>433</sup>

Medical treatises referring to Vyāḍi or one of his works are Kāśīrāma's commentary on the *Śārṅgadharasaṃhitā*,<sup>434</sup> Kṛṣṇadatta's commentary on Trīmalla's *Saśaṅkī*, Māṇikyāsūri's *Rasaratnasamuccaya*, Śivadattamiśra's auto-commentary on the *Śiva-koṣa*,<sup>435</sup> and Vāsudeva's *Vāsudevānubhava*.<sup>436</sup> The quotations are, at least partly, from Vyāḍi as a lexicographer<sup>437</sup> and grammarian.<sup>438</sup> A verse by Vyāḍi, probably from his lexicon, quoted from an unnamed source, is reproduced by G. Mukhopadhyaya.<sup>439</sup>

The Indian tradition ascribes a lost tantra on rasāyana to him.<sup>440</sup> Vyāḍi is mentioned as an adept of rasāyana (alchemy) in the *Navanāthacaritra*.<sup>441</sup>

Works on rasaśāstra referring to or quoting Vyāḍi are the *Lohasarvasva* of Sureśvara, the *Rasakakṣāpuṭa*, *Rasarājalakṣmī*, *Rasaratnapradīpa* of Rāmarāja, *Rasasindhu* of Viṭṭhala, and *Rasendrasambhava*.

Vyāḍi is mentioned as a Rasasiddha in the *Pāradasaṃhitā*,<sup>442</sup> Nityanātha's *Rasaratnākara*,<sup>443</sup> the *Rasaratnasamuccaya*,<sup>444</sup> the *Rasatarāṅgīnī*,<sup>445</sup> and the *Sarvadarśana-saṃgraha*.<sup>446</sup>

The *Garuḍapurāṇa* is acquainted with Vyāḍi as an expert on pearls and their purification.<sup>447</sup>

A verse, calling Vyāḍi a rasācārya, kavi and mīmāṃsaka, is quoted by Paṇḍit Yudhiṣṭhira.<sup>448</sup>

Some Indian sources claim that Vyāḍi lived in the Vindhya and was a son of Nandinī.<sup>449</sup>

Tales about the alchemist Vyāḍi<sup>450</sup> are told in Al-Bīrūnī's India, where he is depicted as a resident of Ujjain and a contemporary of king Vikramāditya.<sup>451</sup> He is regarded as the teacher of Nāgārjuna and Carpaṭi.<sup>452</sup> In the sixteenth century the Tibetan

historian Tāranātha wrote about a Vyāḷi from Eastern India who failed, after twelve years of striving, to gain magical powers and to make gold, and thence set off on a series of extraordinary adventures.<sup>453</sup>

The Tibetan tradition regards Vyāḍi as one of the eighty-four Siddhas.<sup>454</sup> Some alchemical treatises attributed to him (Bha-li-pa) are preserved in Tibetan versions,<sup>455</sup> namely the *Rasāyanaśāstrodḍhṛti* (*Gser-hgyur-gyi bstan-bcos bsduṣ-pa*), translated by Ratnaśrī (O-rgyan-pa),<sup>456</sup> *Rasasiddhiśāstra* (*Diul-chu grub-paḥi bstan-bcos*), translated by Śrīnarendrabhadra and Oddiyana-pa rin-chen dpal,<sup>457</sup> and *Sarveśvara-rasāyana*.<sup>458</sup> A *Dhātuvādaśāstra* is sometimes added to this list.<sup>459</sup>